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COLMAN'S RURAL WORLD.

Is devoted to the promotion of the
AGRICULTURAL, HORTICULTURAL AND STOCK
INTERESTS OF THE VALLEY OF THE MISSISSIPPI.

It is issued on the 1st and 15th of every month, in
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and a Premium of Five Concord Grape Vines to any
one sending the names of Four subscribers and \$6;
and Fifteen Concord Grape Vines to any one sending
the names of Ten Subscribers and \$15.

ADVERTISING TERMS.

A few appropriate advertisements will be inserted
in the "Rural World and Valley Farmer," at the
following rates: One square (being ten lines of this
type or an inch in depth), each insertion \$2; One
column, one insertion, \$15; and \$10 for every addi-
tional insertion. One-half column, one insertion, \$8;
two insertions, \$15, and \$6 for every additional in-
sertion. These rates will be strictly adhered to.

WHEN TO SOW WHEAT.

There is a wide range of time for sowing
wheat; some sow early; some late; but the
middle course is practiced most, and is no
doubt the most successful. Early sowing is
often injurious, pushing the crop too far ahead,
so as to start the seed stalk. That destroyed
by the frost, and the crop is lost. Early sow-
ing, followed by a late warm fall, will do this.
It is better to sow late than early as a general
thing. Some excellent crops are raised from
late sowing.

The great point is to prepare the ground
properly—have it rich, compact, and free
from all weeds and seeds of weeds, if possible—
and most of all, have it well-drained, either
artificially or otherwise dry. Such a bed will
preserve and grow (in the roots) more or less
the winter through—the inclemency not affect-
ing much a well-prepared soil. But where
there is water, or a harshness and poverty of
soil, and careless cultivation, little can be ex-
pected, as the grain is exposed to rot, cold and
winter-kill.

We incline to late or latish sowing, rather

than early—and we are not positive but that
late sowing, on a well-prepared soil is prefer-
able to even the middle course. It is known
that the root of wheat soon attains a good
growth, and that this, in a well-dried under-
soil, is continued during the winter, thus pre-
paring the plant for a vigorous growth in the
spring. It is for this reason, in a great meas-
ure, that late crops turn out "better than was
expected." We have known rye sown in the
Eastern States so late (in new land) that it did
not come up, but went over to the opening of
spring, and then started, giving a good crop.—
We would advise the avoidance of extremes;
but keep on the safe side, which is late rather
than early. Each one will, of course, know
how to suit the time to his locality.

SEE TO THE COLTS:

That the cold nights, and the colder, chillier
rains, do not hurt them. You will find them
cramped, and backed against the rain, suffer-
ing. They, of course, cannot tell you what
they suffer—could not, were it the extremest
pain—or death. They are dumb. But you
cannot be mistaken: they shiver—they look
their anguish, and think all is not right—but will
be glad to follow you to some shelter—and
when there will feel relieved. The hair that
stood out will then become smooth, and there
will be a look of enjoyment.

To keep a colt out, exposed to the inclemency
of the weather till winter sets in, is seriously
to check its growth; and it will take a long
time to supply what is lost; indeed the loss
will never be fully restored. A continued course
of good feeding and treatment, is understood to
be the successful way of rearing stock. It is
so probably with every animal, from youth
up. With the horse it is especially so. A
colt is tender; it has never seen winter; it is
therefore easily affected by the cold. Give
it shelter, then, whenever the cold rains occur;
let it not be out nights, unless the weather is
mild. Give it good hay; tender feed and nu-
tritious, is what a colt requires, and not the
frozen and bleached forage of the fields late in
the season.

Keep colts out of orchards, or where access

to apples may be had. Gorging with fruit or
any unaccustomed feed, is hurtful—sometimes
serious and even fatal.

Continue summer treatment during the win-
ter as near as may be, by providing tender
hay, or cut straw, with a dusting of meal; hay
however is the best; have good shelter; ready
access to water; and a clean stable, well-bed-
ded, with freedom from halter. Treat these
colts like members of the family—and they are
members, the barn members—and there will be
no difficulty. Have an eye out to all the wants
of the colt, and it will look bright at you, and
thank you; it is sensitive, highly organized,
and requires treatment accordingly—not the
treatment of the mule. These colts are to be
our future horses. Treated properly in youth,
they will be not only the better, but much bet-
ter horses.

FALL PLOWING.

The fall is the time to plow land that is pret-
ty well run. Especially is this the case where
clay predominates. In such case the plow
should be run an inch or two deeper than usu-
al. This should not be neglected, as the soil
thrown up from below is the original soil, and
has the strength of the top-soil ere it became
exhausted. This will be like a coat of manure,
the frost and the rains having the effect to de-
compose and mellow and prepare the soil thus
thrown up. It needs the elements to prepare
it. The sun the succeeding summer finishes
what the frost failed to do. A coat of manure
worked into the top-soil would aid this operation
—but it will do well without the manure.

This plan (of plowing deeper) has another
advantage; it increases the soil—the available
soil for growth. In is equivalent to sub-soiling
to a small degree—so that two important points
are reached at one operation, and the extra
outlay is only a little more horse power—not
necessarily an additional horse. So there is no
interference with this plan; no extra expense;
it is simply adjusting your clevis pin.

Now is the time to prepare good shelter for
your stock. Delay in this matter will be loss
in pocket to you, and inexcusable cruelty to
the animals dependant on your bounty.

CARE OF FARM IMPLEMENTS.

We believe it may be safely asserted that the farmer in the course of years sustains as much loss in the needless injury and decay of his tools by exposure to the weather during the season that they are not in use, as he does from the actual wear of them on the farm. The wagon, the mowing machine, the harness, the plow, with the whole catalogue of minor tools and implements, we are convinced, from actual observation, suffer more from the influence of the sun in shrinking and cracking, and in the decay caused by exposure to the wet when not in use, than they would were they kept constantly employed in the work for which they were designed. The cost of a suitable wagon and tool house, would not equal the loss occasioned on many farms, by the careless exposure of the farm tools in three years. An expensive building is not absolutely necessary for this purpose. A simple shed, formed by planting rough posts in the ground, covered with a cheap roof of planks, sufficiently close to turn the snow and rain, will answer the purpose, and may be built in the odd hours that are frequently lost by the farm hands in a single week. Upon a well-conducted farm, supplied with all the necessary out-buildings, the wagon shed, tool-house and workshop, will necessarily be among the prominent appendages. To the farmer, with his tool-house and workshop, the saving that may be secured in the repair of his tools during winter, when little else can be done, will soon pay the cost of such a building. The skilful and thrifty farmer is known by his attention to the minor points of agriculture, by his care to save, as well as to acquire; and he who neglects the lesser things, cannot fail to find the drawback on his profits large and constant.

Written for Colman's Rural World.

KEEPING SWEET POTATOES.

That the keeping of sweet potatoes over winter is still a vexed question, is evident from the numerous inquiries that are made concerning it in the different agricultural papers.

That it is not done by rule and line, is also evident, from the fact of the frequent confessions of failure and loss made by professional growers, even, to the amount of hundreds and thousands of bushels, and where they have fires in their cellars to control the heat and moisture, and thermometers to guide them—as witness the report of Alton Horticultural Society in *Rural World* for Aug. 1st.

It is a sort of wayward, wilful thing to accomplish; "it requires much care and experience," says one, and yet with those who possess and practice much care and experience—they sometimes fail, and in instances where neither of these attributes are applied, success is had.

Careful handling, very dry sand, an even temperature to keep them in, are enjoined upon us—and yet, with neither of these specifics, success sometimes occurs—and with them all, failures often come.

And yet there are some rules that might be followed, no doubt. A small quantity will

keep, where a large bulk will spoil—no doubt of that; and when once put away, they should not be exposed to light and air till wanted for use—in my experience and judgment.

I have, after all, seen or heard of no better plan than the one detailed by me a year or two ago, where they have been kept in a hole in the dry ground under the house, 300 to 400 bushels in bulk, sealed up tight all around, and neither fire-heat nor thermometer to interfere with their winter's sleep.

But my purpose was to describe how I kept sweet potatoes through last winter in small bulk, which might be useful to many farmers to know, as by the same means every one can keep abundance for their own seed and some to eat; while it might not do, nor is intended for professional growers, who keep them by the hundreds of bushels. It is simply the above plan modified.

I dug a square hole in dry corner of a dry cellar—with a clay floor—where no water ever comes. As I dug my crop for market, I sorted out the larger ones for that purpose, and threw the smaller ones in heaps, afterwards picking out the very smallest for the hogs. Some of these laid out several days, was washed by rains, some covered with vines and so on.—Care was had that they were all perfectly dry when picked up and put into the pit, which was done at different times until the potatoes were nearly even with the top of the hole, it then held just twenty bushels. These were all dug before frost had touched them. Subsequently I added five bushels more, after a severe frost had cut the vines and even frozen the upper end of some potatoes in the ground—these all rotted, as might be expected.

I let the hole and potatoes remain just so, until the approach of cold weather, when I covered them over with a foot of perfectly dry forest leaves, on these I dumped a foot thick of Irish potatoes; but at the end of a week found that would not do, as the sweet potatoes began to heat and grow. I then took the Irishmen off, and kept the leaves on the remainder of the winter.

The frost entered freely into the room of the cellar, even to freeze apples, &c., and I varied the covering of the leaves according to the weather outside, but the sweet potatoes under them kept warm all the time, their natural heat even causing them to sprout a little the whole winter: but my twenty bushels came out sound and fine at seed time with scarce a rotten one, and we had a fine feast of them. C.S.

How to KEEP EGGS.—Mr. G. Kennedy Geyelin, in his work entitled "Poultry Breeding in a Commercial Point of View," gives the following directions for the preservation of eggs:—"Now the most effective, simple and economical plan for truly preserving eggs, or keeping them fit for hatching purposes, is to use the patent stoppered glass jars with vulcanized India rubber joints, and proceed thus: Immediately after daily collecting the eggs, put the jar in hot water, and when thoroughly warm, so as to rarify the air, place the eggs in the jar, the pointed end uppermost, and pack and line with paper shavings or cocoa fibres to prevent them from breaking; then close the jar before taking it out of the water, and it will be found

that eggs preserved by this method will be fit for hatching twelve months after, and that those intended for the breakfast table will be fresh as on the day when laid." The work from which this passage is extracted, details the plan of breeding and management carried out by the National Poultry Company, at Bromley, Kent.

[Written for Colman's Rural World.]
FROM N. E. MISSOURI.

Although the prospect of a wheat crop was bad last spring, and still worse in May and June, bidding fair to be all cheat where it was not plowed up and put in another crop—we have had a fair yield. From the statements made to me by several men running threshing machines, I think we can put the average yield of the southern part of Marion and Ralls Counties at from 9 to 10 bushels per acre, of as good a quality as was ever raised here. Potato crop will be short—bugs worked badly. Corn, a great breadth planted, very heavy eared, and maturing rapidly out of the way of frost. Oats never better; some report 50 to 60 bushels per acre. Pork crop will be rather light. "Stock Hogs" are very high. Fruit is light—peaches, a few on the hills or some favored location, but none for market; apples bid fair for a big crop in the spring, but they have fallen badly—caused, probably, by the dry weather in the early part of the summer—so we will have only a moderate crop; pears, good crop, where they have the trees; grape crop rather light where the vines were not covered—where they were covered, they generally have good crops. Hartford Prolific sold at 40 cents per lb., Concord 30—this, of course, is the maximum.—Weather showery for a week past. S. F. T.

Hannibal, Sept. 10.

Selecting Wheat for Seed.

No fact is more evident than that, if wheat, with which are mixed these seeds of weeds, chess, barley, rye or other grains, is used for seed, the crop harvested will not be good, clean wheat. It is equally certain that poorly developed, unripened or diseased wheat kernels cannot be expected to produce superior wheat. Yet many farmers knowing these things, pay little attention to selecting wheat for seed. No farmer should ever sow "dirty" wheat under any circumstances. This year there should be special pains taken in many parts of the country where the wheat crop was almost entirely a failure. It will be much better to procure seed from a considerable distance and at increased expense, than to rely on that which is not suitable for the purpose. In all ordinary cases the fact that such is the best you have is not a sufficient reason.

Care in selecting varieties is also important. If one variety has failed in your vicinity, year after year, try something else, no matter how good a reputation this variety may have formerly had.

The fact that white wheat brings a higher price in the market than the amber or red wheat of the same quality, should be taken into consideration. Of two varieties, equal in hardness, productiveness, etc., of course the white should be selected. In getting wheat from a distance, if you want it earlier than that you now have, go South for it, if later go North for seed. Do not be induced to sow largely of any variety simply because it has done well in other places, especially if these localities are at a considerable distance.

KILLING HOGS.

Killing hogs is a business in which the whole community is interested, and perhaps a small proportion acquainted with. It is termed—"butchering," and often carried on in butchering style, while it is a business worthy of being conducted in a decent and scientific way. I do not purpose going into a long programme of telling how to catch a hog, and how to hold him, &c., but to throw out a few hints.

Do not suffer the hog to be run and worried by men, boys and dogs, getting his blood and flesh heated, just before killing. I believe this is one cause of meat spoiling. Sometimes we drive a hog or two to a neighbor's so as to "kill together," as it is termed, making use of the same force, same fire and other fixings; and we have known the hams and shoulders of hogs thus driven to come out a little short before the next summer was over.

Let the hog be killed with as little noise, and worryment and excitement as possible. A Jerseyman has one man to go into the pen, select his first victim, and shoot him, or with a broad faced hammer (like a shoemaker's hammer) knock down the hog, when other men come immediately and stick, others drag out, and go to scalding, and so on, with a large number of hogs.

Scalding machines have become very common, and are a good institution; but every body has not got one, and still use tubs. I like the tub, and want nothing better for ordinary times; but I want a rope and tackle, and one or two hands to help work the hog. I would not allow a hog put into hot water while there is a sign of life in him; but when dead, make an opening to the gambrel strings and hook in, hoist the hog and dip him head and shoulders into the scald; do not let him remain more than a second or two, lest his hair "sets;" hoist him and air him, and if needful, dip him, again and again, till done; then hook into the lower jaw, and scald the hinder parts. I like slow scalds the best, as less likely to "set the hair." While the hind parts are getting scalded, the face may be cleaned. Too little attention is generally given to cleaning the head, as also the feet, leaving them for the women to worry over by the hour in some cold out-kitchen. As soon as the hog is hung up and washed off, let the head be taken off, and set upon a barrel or block, and regularly shaved and cleaned.

And now, while speaking of the head, I want to say how I cut up a head. I lay it on its side and take off the jaw (or lower jaw); I then saw down across the face, just above the eyes, but careful to run into the eye sockets, and on through, leaving the eye balls with the snout end, so that there is no further trouble with gouging the eyes out of the face-piece; then, without further separating of the parts, starting between the ears, saw up and downwise, not caring to extend further down towards the snout than to the saw-mark across the face, but clean through at the other end. Now, having done with the ears for handles, I cut them off, then take out the brains for pickling—skin the snout, and take off the flesh for scrapple, and throw the nasal organs away. The faces are to be cornered. I use a saw, but never an axe, in cutting up a hog; consequently the meat is clear of splinters and chips of bones. In "chining a hog" to cool, I saw down the ribs instead of hacking them with a hatchet. A small sized hog-hook flattened, answers very well for taking off the hools and toe nails of a porker—or you may use a pair of pincers.—[*Cor. Germantown Telegraph.*]

THE PROPER TIME FOR SORGO CUTTING.—Mr. L. Bollman, of Indiana, says:—Cutting includes three things; stripping of the blades, topping, and cutting from the roots. It is the practice of many to strip the blade some time before cutting, but this is wrong. When the

blades are taken off, the sap ceases to circulate, and much unelaborated sap remains in the plant. If warm weather follows, there is great danger of fermentation. The operations of nature should not thus be interfered with. Stripping, topping and cutting should be done at the same time.

I commenced stripping early in October, but upon comparing the taste of the sap of the riper with the less ripe canes I could easily see the great difference; and this difference continued until all the canes had become red. No stripping or cutting should be done until the cane has turned quite red, and this period is from the beginning of the third week in October in this latitude.

Lewis Co. (Mo.) Agricultural Society.

We are pleased to learn that an Agricultural Society has been organized in this flourishing county, and that the first annual fair will be held at Canton, commencing Oct. 8th, and continuing five days.

The Society has issued a very creditable list of Premiums, and has arranged to have some new attraction each day. The Directors seem to understand that fine and fast horses will draw a crowd, and they want crowds to help pay their expenses. After the day's work is over in other departments, then comes on the display of horses. This may be compared to a dessert after the heavy dishes are partaken of.

For instance, at the close of the first day, there is a Citizen's Premium of \$25 for the fastest trotting gelding in harness. At the close of the second day, is a Citizen's Premium of \$25 for the fastest trotting mare in harness. At the close of the third day, is a Citizen's Premium of \$25 for the fastest pacing gelding in harness or under saddle. For the fourth day, is a citizen's Premium of \$25 for the fastest pacing gelding to harness or under saddle. The fifth day is for sweepstakes on all kinds of stock, and in addition there is a Premium of \$25 for the fastest double team to harness.

We know some persons are opposed to such premiums—but we are not. They are calculated to improve our breed of horses. Greater attention will be given to breeding good horses when thus encouraged. If the above Premiums could have been \$100 or more, each, it would have been better; but it does very well for a beginning. We wish this new Society great prosperity.

The Maryland Agricultural College.

The committee on the resumption of the exercises at the Maryland Agricultural College, appointed sometime since, held a meeting at the office of the State Superintendent of Public Instruction, about the first of August. It was determined that the exercises of the school, under the new rules and regulations, should be resumed about the middle of September. In the meantime the farm is represented to be in most capital condition, a large harvest having been gathered, whilst the fruit trees and shrubbery are in a better state than ever before known. Mr. Barker, who has charge of the farm, is represented as being one of the most experienced practical agriculturists in the country. Under the regulations the farm is devoted to the culture of the choicest seeds and most rare fruits, and the design is to have its broad acres bear the appearance of a garden in every respect, so that the students of the institution, while they receive the best mental training in its class-rooms, will also acquire theoretical and practical knowledge as agriculturists, at the same time, to whatever extent may be desirable.

OSAGE ORANGE HEDGE.

Prof. J. B. Turner, of Ill., is among the oldest advocates of the Osage Orange as a hedge plant, and has had extensive practice in growing it. In an article on this subject, written for the *Prairie Farmer*, he says:

When plants are reasonably cheap, I would never set less than twelve thousand to the mile on land as rich as ours here is, for where a hedge-row is crowded so as to dwarf the plants, it is less work ever after to keep the hedge trimmed, than where they are set so thin as to throw up their full, natural rank growth every year. On poorer land, a less number to the mile would probably answer the same purpose. But on very rich land I would prefer to dwarf and crowd them still more, and set sixteen thousand to the mile; not because it will make a quicker hedge, but because it will in the end be better, and more easily trimmed and managed. On our soil we cultivate the hedge-row and keep it perfectly clean of weeds for three years, at all times till the last of August, when all cultivation should cease, so as to allow the growth to stop and the wood to ripen off before winter; and late in the fall the first year, two or three heavy furrows should be turned against the hedge-rows, covering their sides with dirt as deeply as possible to protect them from the possible accident by cold or pulling out of the wet ground by frost. Early in spring this dirt should be plowed back again to a common level, and all vacant places filled with plants, if not filled the June as before.

No trimming whatever should be given to the plants the first three years, or till the stock is about one inch through, except to clip back some of the stronger plants, and keep the growth of all as even as possible. The stems of the plants will then all stand in a single row, some five or six inches apart. When at this size, let one man take a hook to pull the plants down, and another a nicking plasher, and nick the plants half off quite down, or into the ground, and lay them down to an angle of not more than forty-five degrees; if laid too flat, as some inexperienced men recommend, so that their tops do not come up to the sun, in a few years the main shoots will all die out. But if properly laid, the main shoot will live, and new shoots will spring up perpendicularly, and bind the whole hedge together in a single year, so that it is impossible for anything to pass through it, even the smallest pig.

This is, by far, the easiest way to make a hedge, and when it is done it is far better and at less than half the cost of the old methods. Some allowance must of course be made for soil and culture. It is possible to get a hedge on very rich ground ready to plash down in two years, but here it usually requires three; and with poorer soil and culture it might even require four years or possibly more.

Hedges should not be trimmed severely, and especially they should not be cut close to the ground after August, till the leaves fall; there is also a time when frozen in the winter, and another time when the sap first starts in the spring, in which the wood is too brittle to allow of their being plashed down to advantage, as the stalks are liable to break off before they will bend sufficiently.

Agricultural and Mechanical College of Kentucky.

The Congress of the United States, by an act passed July 2d, 1862, donated to each State public lands to the amount of 30,000 acres for each Senator and Representative then in Congress, for the endowment of one or more colleges, of which the leading object should be, the promotion of the liberal and practical education of the industrial classes, by furnishing instruction in all such branches of learning as relate to agriculture and the mechanical arts, including military tactics, without excluding other scientific and classical studies. The portion granted to Kentucky amounted to 330,000 acres of land scrip; and the Legislature of the State, by an act passed January 27, 1863, accepted the grant with its conditions; and by another act, approved February 22, 1865, established the Agricultural and Mechanical College of Kentucky, as one of the Colleges of the Kentucky University. The Curators of the University accepted the trust with the conditions annexed; and with a full view of the responsibility thus incurred, and of the difficulties in carrying out what has hitherto been an educational experiment in this country, they hope to meet within a reasonable time, any just expectation of the public, and make this College a success. The act of the Legislature required that the authorities of the University should raise at least \$100,000 for the purchase of an experimental and model farm and the erection of the buildings necessary for the various uses of the College. Through the liberality of citizens of Lexington mainly, the required amount was promptly secured by Mr. I. B. Bowman, Regent of the University. He accordingly purchased "Ashland," the home of Henry Clay, and the "Woodlands," an elegant tract adjacent to it, and extending to the limits of the city of Lexington. The whole tract contains 433 acres of first rate land, with fine improvements. All of this property has been placed at the disposal of the University as a site for the agricultural and other colleges. It is the purpose of the Regent, who has dedicated his life to the founding and upbuilding of the University, to raise, as early as practicable, additional means for the erection, on a liberal scale, of all the buildings necessary for carrying on the various colleges. For the temporary uses, however, of the Agricultural College, the present buildings will answer, and provision will be made for boarding at a moderate price, a limited number of students upon the farm, while accommodations for others can be secured in the immediate vicinity.

By the Act of the Legislature, the State reserved to itself the sale of the land scrip, and the investment of the proceeds thereof, and placed the income arising therefrom at the disposal of the University for the support of the Agricultural and Mechanical College. The agent of the State not having disposed of the scrip, the Legislature at its last session appropriated \$20,000 to aid in opening and carrying on the College, until such a disposition of the land scrip could be made as would render the income from it available. The Curators of the University have accepted the amount thus appropriated, with the conditions under which it was made, and will open the College on the first Monday of October next.

CONDITIONS OF ADMISSION.

All applicants for admission to the regular collegiate course in the Agricultural College must be at least sixteen years of age, and must present satisfactory evidence of good moral character and industrious habits. They must upon examination show a fair acquaintance with the studies of the elementary English course as prescribed for students in the academy. Should any applicant be found on examination to be deficient in these preparatory studies, he will be allowed to enter the academy in order

to qualify himself for admission to the regular course. But all such students, as well as those who may be found already qualified for college, must on entering consider themselves pledged to conform to all the rules and regulations among which is one requiring the daily performance of at least two hours of manual labor.

STATE STUDENTS.

By the provisions of the act of the Legislature establishing the Agricultural and Mechanical College of Kentucky as one of the colleges of the University, each Representative District in the State is entitled to send to the college three *properly prepared* students, free of charge for tuition, for each member the district is entitled to send to the General Assembly. Said students also have the right to receive, free of charge for tuition, the benefit of the instructions given in any college of the University, except the colleges of Law and Medicine. To enjoy these privileges, young men must be selected by a majority of the justices of the peace in the several districts, and be properly vouched for by their certificate. And it is most earnestly recommended to the justices to select a board of teachers in each district for the examination of applicants, and to institute a system of competitive examinations, giving all, even the humblest youth, a chance for this State honor. It is expected that the State students will be selected and sent to the college with the settled purpose on their part of completing the whole course of studies prescribed.

EXPENSES.

Students duly accredited and sent by the State under the provisions of the recent act of the General Assembly, will be admitted to the Agricultural College *without charge for tuition*. Other students will pay in advance \$30 for tuition per annum, and \$5 janitor's fee. Boarding houses will be built at an early day on the farm for the accommodation of all the students at moderate prices. For the ensuing session, good lodging rooms on the University grounds will be furnished free of rent to a limited number of students, on timely application to the steward. Those who first apply will have the preference. It is expected, however, that students occupying these apartments will provide their own beds, bedding, fuel, &c. This will be a small tax when distributed among three or four occupants of a room; and such furniture can always be passed to successors at its full value. Good boarding can be obtained in private families, at convenient distance from the University, at from \$3 to \$5 per week. Students by work on the farm, may greatly reduce this expense without loss of time from study.

THE MILITARY DRILL.

The act of Congress donating the land scrip, requires any Agricultural College receiving the benefit of the grant, to give instruction in military tactics. In accordance with the provisions of this act, regular instruction will be given to the students of this College at stated times in the infantry drill. The exercises will be made attractive and valuable as a means of physical development, as well as of collegiate discipline.

The students will receive theoretical and practical instruction in the tactics of the different arms, military discipline and police, in accordance with the regulations prescribed for the United States Army. A plain, cheap uniform is advised, which can be procured by all students upon their arrival in the city, at a cost not exceeding that of an ordinary suit.

MANUAL LABOR.

All students of the Agricultural and Mechanical College will be required to spend not less than two hours a day in active labor on the farm, or at such of the mechanical arts as may, from time to time, be carried on in connection with the farm; and a compensation will be allowed them according to their industry and skill, which allowance, determined by the Faculty or

Superintendent of the farm, will be credited on their account for board, room rent, &c.; *provided*, that such work as it may be necessary for every student to perform while learning the practical application of the various sciences or any branch of art, shall not be considered as productive labor entitled to remuneration.

This labor whether productive or experimental, will be assigned upon the farm, in the gardens, nurseries, orchards, vineyards, workshops, laboratory, museum, &c., as the varied wants, circumstances and attainments of the students may indicate. Experimental labor will be required of all students so far as it may be necessary in the judgment of the Faculty to give them a practical knowledge of the several branches of agricultural and mechanical science.

COMMERCIAL DEPARTMENT.

In connection with the Agricultural and Mechanical College a full course of instruction will be given in those branches essential to a thorough commercial and business education. The course is the same as that pursued in the best commercial colleges, and will, in fact be taught by instructors in Hollingsworth's Commercial College, who have accepted positions as teachers of these branches in the University. Young gentlemen will by this arrangement have a fine opportunity to qualify themselves, free of charge, for mercantile and commercial pursuits while prosecuting a regular course of scientific and classical study.

Particular attention will be given to the art of penmanship on the most approved system, and in every style, plain and ornamental. Arrangements will also be made by which such students as desire it may receive instructions in the best system of phonography or short-hand writing.

EXPERIMENTAL FARM.

Students will be classified according to attainments and age, and, under suitable regulations, they will engage daily in the study and practice of the arts of agriculture, horticulture and landscape gardening. The well-known and highly qualified Superintendent of the Farm, Mr. Charles S. Bell, will have the oversight of all the practical details of the field, the garden, the orchards, the vineyards, nurseries, etc.; and under his direction and that of his assistants on the farm, the students will learn to apply by their own labor the sciences which they study in the halls.

[Written for Colman's Rural World.]

MOLES IN MISSOURI.

In the *Rural World* of the 15th of August, is an article, giving the experience of Mr. Weber, of Zurich, in regard to moles, which may be true in as far as that Canton is concerned, and may even there only apply in certain periods of the year, but is most certainly not the case in our State.

Educated in this belief of Mr. Weber—a view adopted by many writers—I was for many years their protector; but whether it arises from soil and climate or not, is to me unexplained; or whether the observations detailed were made in only one season of the year, and what season, does not appear; but careful experiments with these little creatures and close observation of their habits during the past ten years, has led me to regard them as *one of the greatest pests of the cultivator of the soil*. They cut off the fibrous roots of the strawberry, ruining yearly thousands of plants; the currant and raspberry plantations suffer in the same manner. They will run along the side of a row of grape vine layers and cut off every rootlet.—Moles, with me, renders mulching almost useless.

I have examined the contents of the stomach of every mole I have killed during the past ten years, at all seasons except the depth of winter. Of those killed in June, July and August—but especially in July and first weeks of August—vegetable matter forms a large proportion of the contents of their stomach. The Fluke and White Sprout potatoes, are, with the mole, a favorite article of diet; and in some seasons they devour the tubers in such large quantities as would injure the crop, and their letting the dry air to the roots ruins the vines. In the case of a plat of potatoes planted with the Fluke and White Sprout on each side and Peach Blow in the centre, they preferred the Fluke first, and passed through the Peach Blows without touching them although four times the extent of the two others. I have found their stomachs filled with the white pulp of the potato, and no trace of animal food found at all: and have caught them in strawberry beds and currant plantations and found them filled with a grey blackish pulp with only very slight traces of earth-worms.

Several persons have remarked to me the ravages of the moles on their potatoes, and they are sometimes poisoned by placing grains of corn in their burrows, having a small portion of the kernel scraped out and strychnine inserted. Buffon, Goldsmith and some others state roots to form a part of their diet. The "White Grub" I seldom find in them. I will extend my investigations to the woods to see what they eat there and in winter.

The conclusion to which I have come is, *I would much rather have the White Grub and Earth Worm than the Mole; and destroy and dissect all I can.*

The animal noticed here is the true mole, and not the gopher, which is increasing rapidly in our State. W. MUIR.

PLANTING TOO CLOSE.

This is the common practice. It is done because the thought looks reasonable. We wish to get all we can out of the ground—and strong ground especially will push the crop forward. But practice tells a different story. Say what we will, the sun and air must have a chance, if seed is to be the object. There will be a greater growth of stem when planted close; but not of seed. Nature has ordered this so, as the facts bear it out by experiment. Four feet for corn, unless the kind is a small one.—Four stalks in a hill can thus be grown to perfection.

The principle holds good with most or all things that are planted. It is for this reason that we plant them—else broadcast would be the better way. We everywhere see that wheat does better put in rows—in other words, planted. It is so doubtless with all the grains—with all that grows out of the earth where seed or root product is the object. If we wish to get potatoes uniform and of a medium instead of a large size, we plant close, or closer than is common. Quite close produces small potatoes, and not so great an amount as when more space is given. So our root crops will spindle when too close.

There is another advantage—the more ease in working the soil, which the space between the rows permits. This keeps the grass out, and mellows the soil so as to guard against drouth. It also improves, enriches, the soil—thus aiding the growth by the operation. Not only that, it prepares the soil for the next year's crop, adding fertility, and putting the ground in order. Hence the advantage of hoed crops. But give space, not only for the objects which we have enumerated, but to afford a chance for working between the rows, preventing thus the injury to the plants, which sometimes is considerable where there is rapid growth, making the stalk brittle.

Drilling Winter Wheat.

The following observations from a paper (*Rural New Yorker*) published in a celebrated wheat country, is timely and truthful. The West has adopted the system, and with success. But many still sow broadcast. Can we not persuade our friends to adopt what is now an established advantage? As well dispense with a horse-rake or a mowing machine. Our great staple wheat should have all the attention we can bestow.

"Observation during the past year has more strongly confirmed our belief that drilling is pre-eminently the best method of sowing winter wheat. Frequent freezing and thawing during the late winter and early spring months, does more damage to the wheat crop throughout the country, than all other causes of harm combined. Drilling wheat in a proper manner is the best within immediate and general reach of farmers to counteract this evil. The drill covers the seed at a uniform and proper depth, and it should leave the soil crowning between the rows of grain; this little ridge is a protection against the cold winds, the lightest snows lodge behind it on the crowns of the plants, and when the ground thaws, the soil works from it downward to cover the roots of the wheat a little deeper. Other advantages resulting from drilling over the method of hand-sowing are, a saving of time; the cultivation the drill gives the land—equal to one harrowing; exactly the desired quantity of seed per acre sown, and scattering it evenly. We may add that the work is finished as the drill passes along, which is of some importance in case a heavy rain comes on."

THE BUTTER-MAKER'S GOLDEN RULES.—The great secret in butter-making, it seems, consists in attending to the following points:

- 1st. Securing rich, clean healthy milk—milk obtained on rich old pastures, free of weeds.
2. Setting the milk in a moist, untainted atmosphere, and keeping it at an even temperature while the cream is rising.
- 3d. Proper management in churning.
- 4th. Washing out the buttermilk thoroughly, and working so as not to injure the grain.
- 5th. Thorough and even incorporation of the salt, and packing in oaken tubs, tight, clean and well made.

Cleanliness in all the operations, is of imperative necessity.

Judgment and experience in manipulating the cream and working the butter must of course be used.

HARVESTING SORGO.

Mr. Wrenn, of Ohio, says:—"I cut and shock my cane like corn, with blades and heads on. It keeps well and preserves the fodder, which is now worth \$10 a ton. I cut and shock when the majority of the heads are ripe. In topping Sorgo, cut off from two to three feet, not quite so much from Imphee. Don't strip the cane until ready to grind. Shocked my cane last season on the 11th of October, and it remained four weeks before being worked."

Mr. Branch, O.—My sorgo was very heavy and blowed down, forming a tangled mat like a brush heap. Cut it up and hauled it to the mill, and afterward stripped and topped it as it was wanted. Stowed it with leaves and all, in a shed, where it remained for four weeks, and it kept perfectly good. I prefer to cut off the heads in the field, where the seed will do better than anywhere else until cured. Rain won't hurt it. I don't cut close to the ground as formerly. The lower joint or two don't amount to much, and I would also remove at least two joints from the top. They contain much of the offensive gummy matter which cannot be got out, and which prevents the sirup from granulating.

Mr. Kinney, O.—It is a mistake to cut the cane very close to the ground, or to leave too much of the top on the stalks when it is ground.

Mr. Franklin, O.—If the cane is green when cut it will improve some by being kept a few days; but cane that is fully ripe will deteriorate every day until it is worked. I advise every one to be particular, and not store away the cane with the dew on.

Mr. Barge, O.—Do not cut within eight inches of the ground, and remove at least two feet from the top."

OX YOKES.

A correspondent of the *New England Farmer*, who has had large experience with oxen, gives his opinion as to ox yokes, as follows: "There are three points about an ox which are more liable to be made sore by ordinary work in the yoke than any others, viz: The top of the neck and the two shoulders. We often see oxen with sores on each of these three points. Sore shoulders are often caused by the bow being too wide. Sometimes it is caused by the bow being too square or too sharp on the outer edge. The bow should be perfectly round at the shoulder joint, and of such width as to come between the neck and shoulder joint. If any man does not believe this, let him put a heavy crow-bar on his shoulder and in the right spot, and walk eighty rods, and then put it on his shoulder and walk back."

"The drop of the staple, as a general thing, should come down about half way from the top of the ox's neck to the shoulder joint. Oxen drawing on the lead need a more crooked yoke or a longer staple than when drawing on the nib."

BUTTER-MAKING—RUSSIAN PROCESS.—It is stated that a method prevails in Russia in preparing milk for creaming, differing somewhat from that commonly adopted in most other countries. Before proceeding to milk the cow, a kettle partially filled with water, is placed upon a stove for the purpose of having the water raised to the boiling point by the time a pail is filled with milk. The latter is strained into another pail, which should be of tin and perfectly sweet and clean, and, when filled, placed in the boiling water till the milk becomes raised to about the scalding point, when it should be transferred to pans and placed in the cellar or milk house till the cream rises. The advantages of this process are said to be an abridgement of the time usually required for churning, and an increase of the butter product. The extra labor is but trifling, while the benefits this preparation of milk for butter-making bestows, are worthy of consideration.



HORTICULTURAL.

Prepare for Fruit Planting.

The fall of the year is an excellent time for planting fruit. The earth has a chance to settle snugly about the roots of the trees before their period of growth in the spring, and the trees will shoot forth without delay, and if they have been properly treated will hardly show any signs of having been removed.

The farmer has time now to devote to a thorough preparation of the soil. He can plow it deeply and well. He can take ample time to plant his trees well. The weather is generally favorable in fall. The soil is not so wet as in spring. Business does not drive so urgently. If delay occurs, the consequences are not so bad as in spring. The trees will not get out in bud and leaf in the fall. They are now asleep, but in spring they wake up, and are anxious to push ahead. Other work in spring is pressing. Crops must be put in—and that takes time and toil. The farmer has not time to attend to such work then. Trees are neglected—orchards overlooked.

Do farmers consider the value of orchards?—As an article of food, fruit is hardly second to wheat or corn. Half our diet is fruit. We could hardly live without it. It is the healthiest diet in the world. It is also the cheapest—can be produced with less labor and at less expense. It is not only a healthy and cheap diet, but it is a luxurious one. It pleases the palate, as well as agrees with the stomach.

As a crop, fruit is acknowledged by all who have ever raised it, to be by far the most profitable of any. Wheat, corn, oats, or any other farm crop, will not pay one dollar where good fruit will pay ten dollars, if a good market is available. And there is everywhere and always a good demand for good fruit at good prices.

The value of a farm is enhanced a hundred-fold by having upon it a large and well-cared for orchard. Such a farm, if for sale, will soon find a purchaser.

There is every reason to offer for planting fruit trees—not apple trees only, but pear, quince, cherry, peach, plum trees, &c. And then the smaller fruits should not be neglected. They can be planted now. They equally contribute to health. The currant, the gooseberry, the blackberry, the raspberry—all succeed well—that is the best varieties do, and they should be planted and the fruit in their season be largely partaken of. Ripe fruit keeps the bowels open, separates the bile from the blood and wards off disease. It has been given us by the Great Creator for a wise purpose. It is sought

after with the greatest avidity by the young and old, by the prattling child, and the aged and infirm.

[Written for Colman's Rural World.]

SPIREAS.

The family of Spirea is not only a pretty extensive one, embracing many members, but it is also one of the most useful in garden decorations, whether for large or small gardens: for parterres and pleasure grounds it is especially valuable for massing, forming dense masses of low growing, sprayy shrubbery, with neat and varied foliage and pretty flowers.

True, there are none of the species that can be called brilliant or gorgeous; they do not possess the rich foliage of the tropics, nor the large, gay masses of bloom, which constitute the charm of the Rhododendron and Azalia.—They are especially adapted to temperate climates, and possess so many good qualities combined in one family as to render them indispensable in every garden large or small, and are, as they deserve to be, popular with everybody.

These qualities are—hardiness, ease of propagation and culture, requiring very little care or attention; branches and foliage varied in the different kinds and all pretty; flowers generally very pretty, blooming at all periods of the growing season, of several different colors, and all free blooming.

Some catalogues enumerate nearly fifty varieties, but many of these are so very similar as not to appear very distinct, and are not all worth cultivating as distinct kinds. There might, however, be a dozen sorts picked out, that would embrace all or nearly all the above good qualities, and no one of which can hardly be left out of even a moderate collection.

We will proceed to enumerate what we consider that number of the best varieties, as a guide to those who are seeking information as to what to decorate their gardens with.

Spirea Prunifolia—Is the earliest to flower; blooms in April; has smooth, upright branches which are clothed with small, round, glossy leaves, and in spring these branches are hung with small, button-like pure white flowers, forming a snowy sheet.

S. Reevesii—Succeeds the above in time of blooming; has an entirely different appearance, with bluish-green lance-shaped leaves, and small heads of pure white flowers; very pretty.

S. Ulmifolia—Comes next to the last; has larger leaves, something like the elm. Corymbs of white flowers, having a greenish tinge; large, quite pretty.

S. Opulifolia—Guelder rose-leaved—a large shrub, growing eight feet high, with leaves like the snow-ball, and flowers somewhat like the last.

S. Argentea—Silvery leaved. Is a small compact grower; leaves very silvery beneath; numerous and thickly set along the branches; flowers pink, in small spikes; May and June.

S. Callosa, or *Fortuni*—A rather new species brought from China by Fortune; blooms in long succession in broad flat corymbs of light crimson flowers—a valuable sort.

S. Douglassii—A slender growing variety, with greyish branches and leaves, blooms late and in long succession, deep red.

S. Billardii—A strong growing kind, new and excellent, rose-colored, the end of every branch having a spike of blossom, which if cut will bloom from early summer till late.

S. Sorbifolia—An old species, has foliage like the mountain ash, and large spikes of white flowers; pretty early.

S. Candicans—Another strong growing variety, with large broad spikes of whitish flowers in early summer, and along in succession.

S. Lindleyana—One of the noblest of all the Spireas, grows 6 to 8 feet high, foliage something like *Sorbifolia*, but tinged with yellow, with broad flat panicles of white flowers, blooming along in August and September; in our judgment a very fine variety.

The above embraces about all that is desirable in this class of shrubs, others are but imitations of one or the other of the above, and cultivators having this list can make a good display. S.

WHAT TO PLANT.

ED. RURAL WORLD: I want to plant out some gooseberries, raspberries, currants and blackberries. Will you please to give me the names of such varieties as you know will succeed well in Missouri. As you have had a large experience in raising fruit, I shall rely upon your selection with great confidence.

YOUNG RURALIST.

REPLY—The only variety of gooseberry that we can recommend to you is the *Houghton Seedling*. We have cultivated this by the acre, and it has always done well. We have tried twenty other varieties and none of them succeed well here. We have Downing's, and have considerable faith that it will prove valuable here, but have not yet given it sufficient trial to justify us in recommending it.

Raspberries—The best early raspberry is Doolittle's Improved Black Cap. It ripens a week or ten days earlier than any other variety, is very productive, and very profitable in the neighborhood of large towns and cities. It is larger, sweeter, more pulpy and juicy than the common black cap. It is perfectly hardy, and seems to adapt itself to every locality. The best red raspberry that we have tested, is what we designate as the St. Louis. It succeeds the Doolittle in time of ripening. It is hardy, juicy, sweet and productive. We have tried a great many other red varieties, but this is the only one we have found to succeed well here. We are growing it largely for market, and find it highly profitable—the fruit commanding from 50 to 75 cents per quart in market. The Philadelphia may prove to be superior to this variety, and we hope it will, but as yet we cannot speak positively. It certainly promises very well. At the East it stands at the head of the list, and we hope it may find a congenial soil in Missouri.

Currants.—The Red and White Dutch seem to fill the bill as well as any of the newer varieties. If planted in soil well prepared and kept free of weeds by cultivation or by mulching with manure or other material, they will bear very heavy annual crops. We have culti-

vated them largely for ten years past, with uniform success. It is all bosh, that currants will not do well in this climate. If planted by the side of the fence, or in stiff sod, they will not do well—and what would? But if given the same care that other things receive, they will bear heavily every year—though the plants need age to come to full maturity and productiveness.

Blackberries.—The New Rochelle (or Lawton) we can cheerfully recommend. With the proper attention, it succeeds well everywhere, and the fruit, if allowed to ripen, is delicious and healthful. We cut back the canes in summer, and keep them to about the height of four feet. They are more productive thus trained, and less troublesome. They thus require no staking or other care. They will reward you for rich soil and plenty of manure, and so will all the fruits of which we have spoken. Plants, like animals, must have plenty of nutritious food to thrive.

PHILOSOPHY OF PRUNING.

We give below a few brief extracts from a very able address delivered by Dr. John A. Warder, of Cincinnati, before the Pennsylvania Horticultural Society, at its recent annual meeting, upon the philosophy of pruning. The subject is treated by the Doctor in his peculiar, direct, pointed and thoroughly practical style—every word being to the purpose. We regret that we have not space for the entire paper, as it is full of instruction upon the subject which it treats:

Pruning is one of the most important operations to be applied to plants, especially to woody plants. Pruning, in some sort, has to be performed at all periods of their existence and growth; and upon all, from the lordly forest tree, or the fruit-bearing orchard, of whatever kind, to the humble bushes and brambles that yield us their abundant and most welcome fruits, or the trailing vine that adorns our arbors, and covers our trellises with its rich and tempting clusters of luscious grapes. Many herbaceous plants are also submitted to judicious pruning, and yield in consequence an increased product of fruit. Our ornamental gardeners and plant-growers practice pruning most admirably upon their house-plants, and by their successful methods of pursuing the practice, they produce the most wonderful effects, in the vigor, thrift, symmetry and blossoming of their specimens, as may be seen, especially at your noble exhibitions. And yet, when we come to travel about the country, and see the shrubberies, the parks, the orchards, fruit-gardens and vineyards, as they are, we shall be struck with the great amount of ignorance or neglect which is manifested in what we everywhere behold! Still more shall we be surprised when we hear nurserymen and orchardists—men who have had opportunities for extended observations, and those, too, who are considered successful cultivators—advocate the idea that trees should not be pruned at all.

If it be asked why we must prune, it may be answered, in general terms, that in the orchard, our object in performing this operation are twofold. 1st. We prune for shape and comeliness, and for the removal of dead and dying branches, in aid of nature, but working in sympathy with her. 2d. We prune for the sake of inducing fruitfulness; let us consider some of the principles that are to guide us in these operations.

The first object, that of producing the desired shape of the future tree, is chiefly done upon the young subject—even in the nursery row.

The judicious pruner, being well aware of the upward tendency of young growth, and that this is increased by the crowded condition of the tree in the nursery square, seeks to overcome the evil by proper pruning. If the growth be altogether upward, with no side branches the first season, the stem will be slender, often so much so as to bend with its own weight. The wise nurseryman carefully avoids disturbing the leaves or the lateral branches, well knowing their importance in forming the woody trunk. At the proper season he trims his trees down instead of up; this he does by heading them back to the height at which he desires them to form their branches; at the same time he shortens in the laterals—his object being, in both instances, to check the upward tendency of growth by removing the strong terminal buds which would naturally have formed the new shoots the coming season. The result of this treatment is to call into action several buds at the upper part of the stock. These are to form the arms of the tree, and hence, a very important part of the pruning and training of the plant is thus performed at once by this heading-back of the young nursery tree. But further attention is needed as these arms develop themselves during the next season of growth; they should not be too numerous, nor too much crowded together; they should not be too nearly matched in strength; and a single one among them, centrally situated, should be kept as a leader, which should be stronger than the rest. Never allow two shoots to remain, contending for the mastery, but subordinate one of them by cutting, breaking or twisting, so soon as it is observed, for how beautifully developed soever such a tree may appear when well balanced, there is always danger of its splitting down when heavily laden with fruit. This very common error of our orchards used to be quaintly illustrated by a dear old friend on the prairies of Illinois, who cited the advice of a Scotch jockey to whom he had applied for counsel in the purchase of a piece of horse-flesh. "Ne'er buy a horse whose two fore legs come out frae ane hole," said he; and my friend, Mr. Stewart, applied the same rule to his young fruit trees by never allowing them to form two equal leaders starting from one point.

The proper season for performing this kind of pruning, is in the early spring, after the severe frosts of winter have been passed; and, with some kinds of orchard trees, at the time of planting, when they should always receive a severe pruning and a reduction of their limbs, somewhat in proportion to the shortening of their roots.

The second object of pruning being to promote fruitfulness in the trees, it should be done chiefly in the summer, or during the period of growth. At the same time, or during the growing season, much may be done to advantage both in thinning-out and shortening in such parts of the tree as may need these plans of treatment. Various methods are pursued to produce fruitfulness—all of them depending upon the fact that this condition arises from the natural habit of the tree to make its wood-growth very freely for a series of years, and then, while the growth by extension is curtailed, to take on that wonderful change by which the wood-buds are transformed into those that expand into flowers and produce fruit. The study of these changes is called morphology, and when the tree has reached this condition, it is said to have arrived at maturity.

After the tree has built up a complicated structure of limbs and branches, with some consequent obstruction to the flow of sap, dependent upon the hardening of the woody tissues and contraction of the cells, as well as upon the tortuous course of its passage, it appears to reach its maturity, and to come into bearing condition. It ceases to make such free wood-growth, and prepares a set of buds which develop flowers and fruit.

Now this period of growth and unfruitfulness may continue for a longer or shorter period in different varieties of fruits, and the curtailing of this period is the great object of the leading operations of summer pruning, and of other methods of producing fruitfulness that may be classed with it under the second head of the objects of pruning.

To appreciate their importance, and the mode in which the effect is produced, we must bear in mind the two great acts of vegetable life—the production of wood and that of fruit: the one, multiplying the associated buds or plants that make up the community of buds which constitute the tree; the other, producing the germs of new plants that are to be separated from the organism, and which are prepared to set up a separate existence. These two acts are in some sense antagonistic. The first is essential to the production of timber, to the building up the tree, and should be encouraged to do its work undisturbed, to a certain point, that we may have a substantial frame-work by which our fruits can be supported. The latter, however, is the ultimate desideratum with fruit-growers; and in our impatience to reap a quick reward, we often resort to measures which tend to curtail the usefulness, size and beauty of our trees, as well as their performance. This is an illustration of the axiom, that whatever threatens the vitality of a plant, tends to make it fruitful—calls into activity the instinctive effort to perpetuate the species by the production of seed that may be separated from the parent, and establish a distinct existence to take the place of that, the life of which has been threatened.

The operations of summer pruning and pinching, constitute an interference with the growth by extension and threaten the life of the tree. The entire removal of all the new shoots and their foliage, and the repetition of this operation upon the successive attempts at their reproduction by the tree, will cause its death in a little while—their partial abstraction as practiced in these operations of summer pruning and pinching, being an attack of the same kind in a smaller degree, results in the formation of fruit-buds. The operations of budding and grafting upon uncongenial stocks, interrupting the circulation of the sap by ringing, by ligatures, by hacking, twisting and bending downward, all tend to the same end; they check the growth by extension; they interfere with the wood-growth, and they are attended by similar results, since they are antagonistic to the mere production of wood, or to the growth of timber. Shortening in the branches of some species, which form their fruit-buds upon the shoots of the current year, has the effect to give them a fuller development if performed at the proper season; but if deferred to a later period, this process will have a directly opposite result, and will cause an increase of the wood-growth, at the expense of the flowers and fruit.

The reason for pruning, has been made the subject of much discussion, and different periods have been advised with great confidence by different authorities. From this diversity of views it may be inferred that all are somewhat right, or may be supported by good reasons. This refers, of course, to pruning in its general sense of *trimming*, and applies to the removal of limbs of greater or less size.

Mild winter weather, or the early spring time, is a favorite time for pruning, because it is comparatively a period of leisure; the absence of foliage affords us an opportunity to see the work before us, and to anticipate its effects upon the configuration of the tree. So soon as the buds begin to swell, and the foliage to expand, pruning should be arrested, unless in small trees, because the sap is in active motion, and the material called *cambium* is not yet developed; hence, the wounds will bleed, and are not so readily healed over; besides, the bark at this season is very readily separated

from the wood, and bad wounds are thus frequently produced by the pruner, which may seriously damage the tree. Then comes a period when pruning had better be suspended, until the time the trees have completed their growth by extension, and formed their terminal buds at the end of the shoots. The precise date can not be given, but it is indicated with sufficient accuracy by this mark in *Nature's Calendar*—the formation and full development of the terminal buds, and by the copious deposit of woody matter throughout the tree; the annual layer of fibers is then being produced, and the tissues are in the formation stage; the tree now possesses, in its own organism, the best of all plasters to cure and cover the wounds made by the saw and knife—it now possesses the *true vis medicatrix nature* in the highest degree.

For the removal of small limbs from young trees, hardly any time can come amiss. 'Twere better to do it out of season than to neglect it; and it is a good rule to have a sharp pruning-knife always at hand when passing among our young orchard trees. There is but one time when pruning should be absolutely interdicted, and that is all the time when the wood is frozen. When so circumstanced it should never, on any account, be cut or disturbed, or handled in any manner, not even to gratify your best friend by helping to a few grafts from your tested tree of some coveted variety. Let him wait for a thaw, or go away without them, rather than commit such an outrage upon your tree as to approach it when frozen.

While considering the question of the proper season for pruning, there is one axiom of great importance which should be firmly impressed upon the mind of the orchardist: Much will depend upon which of the two leading objects he may have in view—vigor of growth and symmetry of form, or simply fruitfulness, as the result of his labors in pruning his trees. Pruning at one season will induce the former effect; at a different period of the year, the same work will conduce to the latter results. Hence the value of this postulate, which is pithy and easily remembered: PRUNE IN WINTER FOR WOOD—IN SUMMER FOR FRUIT.

DAHLIAS.

As soon as the frost has killed the tops of your dahlias, dig up the roots, taking good care that they are not exposed to the action of frost. Let the soil adhering remain without shaking off. Fasten with a wire, a label with the name distinctly written on it, on each stool. Then place the roots in a dry, but not warm room, for a few days, where they can be secure from freezing and until the soil is dry around them; then pack them away in boxes or barrels among dry sand in the cellar, giving them about the same treatment as potatoes.

If the cellar is very dry and secure from frost, the packing among sand may be omitted. During the winter the roots should be examined, and any tubers that are rotting removed with a sharp knife.

If you have a greenhouse, all the trouble of packing is needless, as the best place to keep dahlia roots is beneath the stage, where they will keep well without any care. C.S.

TO PRESERVE CIDER.—We give the following receipt for preserving cider, kindly furnished us by one of our lady readers, and having recently tasted of cider kept sweet and clear by this method, can testify to the value of this receipt: To one barrel of cider, put in one pound mustard seed, two pounds raisins, and one-fourth pound sticks (bark) of cinnamon.—*Maine Farmer.*

CARE OF THE GLADIOLUS.

When frost has withered the leaves of the Gladiolus, the bulbs should be taken up. If the collection is a named one, place the bulbs, after being dried, in paper bags—each variety by itself, with the name plainly written on the outside. In digging up, a number of small bulbs about half the size of peas will be found around the base. If these are taken care of and planted next season, they will grow, and in time become blooming bulbs.

The increase by natural division, however, is that which is usually depended upon—some bulbs dividing into from two to four during a single season's growth.

It is necessary to keep the bulbs in the cellar, or some other place, that is not too warm, but free from frost, to the influence of which they are not as susceptible as the dahlia. C.S.

Process of Wine Making.

The following on wine making was written for *Downing's Horticulturist*, some years since, by the late N. Longworth, of Cincinnati, Ohio, the most experienced Vintner in this country:

"We gather our grapes at full maturity; carefully pick off all green, rotten and decayed grapes; pass them as speedily as possible through a machine, (thoroughly seasoned, and all possible taste from the wood extracted,) to separate the stems from the grapes, and mash them, without breaking the seed. Instead of placing them in a towel and bowl, we place them on a large clean press, in which not a nail is driven, and the wood of which has been fully seasoned; and even if of beech wood, should not allow a particle of the taste of the wood to remain in it. Press it as speedily as possible, keeping the last hard pressing separate from the earlier runnings. Place the *must* in clean casks, from which no taste could be obtained from the wood, or any previous brandy or wine holdings, unless from liquor of the same kind of grape. We immediately place the cask in a cool cellar, do not fill it entirely, but as soon as the fermentation commences, stop the passage of the strength and aroma of the grape as far as possible, by putting in a tight bung, through which passes a crooked syphon into the cask to receive the air; and the opposite end of the crooked syphon is placed in a vessel of water; and the syphon is continued until the fermentation is nearly over, when the syphon is taken out and a tight bung driven in, giving air by a small gimlet hole two or three times a day, for three or four days; after which all air is excluded till the wine is clear, when it is racked, and the cask thereafter kept full and tight. If we wish a superior article, we do not deem it fit for bottling till four or five years old. If fining were necessary, and isinglass or the white of eggs, to fine a pipe, cost \$20, we should never think of using beech chips."

St. Louis Horticultural Society.

St. Louis, September 8, 1866.

Society convened at 2 o'clock, P. M. President Colman in the chair.

The following fruits and flowers were presented: T. W. Gay, Sulphur Springs, Mo. Ward's late, and Washington cling peaches, both fine specimens.

Colman & Sanders, Nurserymen, St. Louis, Mo. Twelve varieties of roses; eight do. of Dahlias; eight do. of Althea or Rose of Sharon, very fine; two do. honeysuckle; spirea lindleyana, spirea callosa, spirea candida, vitex agnus castus or chastetree, hypericum or St. John's wort, Chinese lilac, wigelia rosea; also fruit of mountain ash, kobrenteris, over cup, white oak, buckeye, symphoricarpa or snowberry; also branches of ring leaved, white, grey, osier, Beveridge, golden and two other varieties of willow. The above spread out upon the ample table, produced a fine effect.

W. F. Cozzens, Chairman of the Committee on

California wines, presented a written report, which was accepted and the committee discharged. After some remarks from the President, on motion of Dr. Morse, the consideration of the report was postponed to next meeting.

The regular topic for discussion then came up, viz: "Shade trees in cities."

The hour for the reception of the President of the United States having arrived, and the number in attendance not being large, this topic also was postponed and the Society adjourned to next Saturday P. M., at 2 o'clock, when it is expected that in addition to the important subjects for discussion before the Society, there will be an exhibition of foreign grapes, and comparison between those raised under glass and those produced in open air.

CHARLES PEABODY, Sec. pro tem.

St. Louis, Saturday, Sept. 15, 1866.

Society met at 2 P. M. Dr. B. F. Edwards was chosen President pro tem. Minutes of last meeting read and approved.

J. W. McIntyre was elected member of the Society. The following fruits and flowers were presented, viz: From Colman & Sanders, St. Louis: Beurre d'Anjou, Seckel, Belle Lucrative, Beurre Diel, Steven's Genesee and Kingessing pears.

From Raphael Bush, Jefferson county, per Isidor Bush, Esq.: Louis Bonne de Jersey and Flemish Beauty pears; also grapes from Hungarian Riesling, foreign, planted last May and raised in open air.

From Henry Michel, St. Louis county: twenty varieties of bouquet dahlias: fifty varieties of large flowering do. This display of flowers, covering most of the large table, presented a magnificent appearance.

From Dr. F. Edwards, Kirkwood: Taylor's Bullet and Hettie grapes.

From A. Benard, St. Louis county: Louis Bonne de Jersey, Duchess d'Angouleme. Winter Nelis, Vicar of Winkfield, Onondaga pears; also, one variety of same, unknown.

From Henry Shaw, Esq., St. Louis county, by W. F. Cozzens: Foreign grapes, as follows, viz: Muscat of Alexandria, Black Hamburg (one bunch weighing two and one quarter pounds), White Sweet Water, Frankenthaler, Muscat de Fontignac, Chasselas Musque, and Black Tripoli. Also pears, as follows, viz: Duchess d'Angouleme, Beurre Diel, Beurre Langelier, Knight's Monarch, Louis Bonne de Jersey, Easter Beurre, Belle Lucrative and Beurre d'Arenburg.

From Robert Gilbraith, St. Louis county: Samples of Cider Wine.

The report of the Committee on California Wines, which was presented last week, being in order, was read by the Secretary, and is as follows:

REPORT ON CALIFORNIA WINES.

The committee to whom at the last meeting of this Society was referred the California wines for examination, beg leave to present the following report:

The great object had in view by the establishment and labors of the St. Louis Horticultural Society, as we understand it, is to obtain and diffuse correct information on all subjects pertaining to fruits and flowers. This covers not only a consideration of the best varieties to be cultivated, but the best methods of culture, the adaptation of soil, climate, &c., to particular plants or trees. It also legitimately covers the products of the garden and vineyard, the best methods of preparing them for consumption, and the legitimate uses and benefits of all these products to the public at large. In pursuance of this aim, the Society should endeavor to stimulate and encourage the production of those things, lying within its proper range, which are believed to be useful or beneficial, and on the other hand to shield the community as much as possible from what, in fruits, flowers, trees, plants and their products, are known to be humbugs, impositions, hurtful, or in any way calculated to deceive. Your committee also recognize the duty of the Society to exercise great caution on the one hand in commending those things which are not thoroughly tested, and on the other hand to avoid treating any party or plant or product unjustly by too hasty a decision.

Deeply impressed with the above considerations, your committee came together to examine five bottles of wine referred to them by the Society at the last meeting. These bottles were labelled as follows, viz: Hook, Mound Vineyard, Port, Sherry and Angelica; all five bottles purporting to be from Lake Vineyard, Los Angeles, California. Your committee were at once impressed by two peculiarities in these wines, quite different from any native or pure European wines they had ever tasted. First, they were very sweet; and second, they were very strong in the alcoholic product, which appeared and smelt marvelously like brandy. Not being able to decide upon their real quality from having no standard with which to compare them, your committee invited together several of the best judges of wine in the city, who are not mem-

bers of the Society, together with a few members, including our worthy President. The labels on the bottles had all been carefully removed, and these gentlemen, having no knowledge of the source from which the wines came, were invited, after a careful examination, to give their opinion in writing. This request each one, without consulting the opinion of any other, cheerfully complied with. The result was perfectly unanimous. All agreed that, while these samples of wine were strong in alcohol, and to some tastes might be considered pleasant, they were not the pure unadulterated juice of the grape. One of these gentlemen, who is perfectly familiar with different foreign and native wines, contented himself by writing, "Please set before me wines, such as come right from the press. I know nothing about cooked wines, such as I believe these to be." Another, himself an eminent physician of this city, declared that, to him, these wines all appeared to be "doctored." Your Committee cannot avoid coming unanimously to the same conclusion. They do not consider these samples of wine to be the pure unadulterated juice of the grape, and admit a possibility that they are not the product of the California vineyards. They are rather confirmed in their convictions by examining a sample of pure California wine, imported from that State for private use by Morris I. Lippman, Esq., of this city, and courteously furnished the Committee for examination by that gentleman. This sample exhibited the finest characteristics of the white or amber colored wines of Southern Europe, with the distinct grape taste, and was in all respects totally unlike the samples which your Committee had under examination. They cannot therefore conscientiously advise the St. Louis Horticultural Society, by endorsing these wines, which are said to be for sale in large quantities in this city, to commend them for general use by our citizens. Very respectfully submitted,

W. F. COZZENS,

D. F. JEWETT,

CHARLES PEABODY,

Committee.

President Colman. I wish to make a few remarks upon this report, and state a few facts. The committee have evidently given the subject committed to them, a very careful consideration, and I agree most cordially with them in the results they have reached. At the same time the subject of wines is a very difficult subject to investigate and thoroughly understand. It is well known that different localities produce different kinds of wine. There is Rhine wine, produced on that famous river. In the south of France a different wine is produced. There are almost endless varieties of wine caused by different kinds of grapes, and by different climates, and different modes of treating them. Now these wines, which are the subject of this report, purport to be from California, a country well known to be famous for the production of the grape in all its richness and glory. The European grape will flourish there, though it will not do well here. The country is dry; no rain falls during the whole season of the ripening of the grapes. They are consequently sweet and rich, and will necessarily produce a very sweet and strong wine. Wine can be made there remarkably cheap. It can be shipped to New York and there sold at an immense profit. All I wish to say is, we do not fully understand this subject of California wines, and we ought to exercise great care not to treat any parties unjustly. I am, however, glad to see the stand taken by the committee, and am in favor of the report.

Mr. Peabody. The subject of California wines, as such, was not before the Committee. All that President Colman has said concerning California wines is undoubtedly strictly and literally correct. The Committee had before them five bottles of wine for examination, purporting to be from Los Angeles, California. Those five bottles of wine are the subject of the report, and nothing else. The report speaks incidentally of California wines in commendation, but expresses no general opinion on their quality.

Mr. Jewett. I doubt very much whether wines so different as these samples named hock and port can be made from the same variety of grape. All California wines are produced from the same grape—the old Mission grape, as it is called. It is true that in different parts of California wine made from this grape possesses different quantities of alcohol. That produced for instance in the central parts of the State contains but thirteen per cent. of alcohol, while that from Los Angeles, in the southern part, contains about sixteen per cent. European grapes have been introduced into the State, but are not yet grown in large quantities. I have not the slightest doubt in my own mind that the position taken by the committee is correct.

Mr. Cozzens. The sample of pure California wine from Mr. Lippman, referred to in the report, was produced, I learn, at Santa Rosa, which lies north of Los Angeles.

The report of the Committee was then unanimously

adopted and ordered to be published with the minutes.

The following report was then presented from the delegate chosen at a former meeting to attend the meeting of the Fruit Grower's Association of Southern Illinois:

THE SOUTHERN ILLINOIS FRUIT GROWERS.

St. Louis, September 15, 1866.

Mr. President, and members of the St. Louis Horticultural Society: I feel it a duty as well as a great pleasure to report my visit to the fruit exhibition at Cobden, Illinois, on the 4th, 5th and 6th of this month. I arrived there on the morning of the 4th. I was deeply impressed with the view of towering hills and rugged rocks that would do justice to a New England landscape, and all the more imposing to see it in the Prairie State.

These young mountains (for such they are), formed largely of disintegrated sandstone, are very fine for fruit, and I can assure you the Egyptians know it too, for nowhere have I seen the cultivation of fruit carried on to such an extent as in Southern Illinois. They not only plant by the hundreds but by tens of thousands. One man has twenty thousand peach trees; another forty thousand pear and wants to plant sixty thousand more, for the convenience of having an even hundred thousand; and those that have planted and taken care of their fruit, have become wealthy in a few years.

The exhibition of fruit was a fine affair. A spacious hall, owned by the Society, was filled to overflowing with magnificent apples, large and well ripened pears, beautiful peaches and luscious grapes. The first day was mostly spent in receiving fruit, flowers, wines, &c. The evening was occupied in discussing the best mode of cultivating the apple, and those who have had much experience were put on the stand and gave in their experience, and I can assure you they do not talk without some knowledge, as one man, in order to be well posted, and know what to plant, puts out a sample orchard of eighteen hundred different varieties of apple trees, and as these are coming into bearing every year, adds to his stock of knowledge something new.

The second day was spent in revising the list of fruits, and they recommended (for pears) Bloodgood, Bartlett, Belle Lucrative, Howell, White Doyenne, Flemish Beauty, Seckel, Lawrence, Winter Nelis, Glout Moreau, Vicar of Winkfield, Onondaga, Steven's Genesee, Duchesse du Angouleme, Bonne de Jersey.

The Committee on Grapes voted on each variety recommended; and that variety that could not be placed at 3, or above on a scale of 10, should not be recommended; and afterward the Society raised the standard to 4 on a scale of 10. Then the following varieties were recommended: Hartford 8; Delaware 6½; Concord 10; Clinton 7; Norton's Virginia 7. So by grading them on a scale each grape has its just value.

The evening was occupied in studying the best kind of fruit to plant and make the most money. Some favored early apples, some pears, others peach, strawberry, and not a few appreciated the value of the grape, while others would plant an assortment.

The oft repeated assertion that the business would be ruined in a few years, was answered by one of no small experience, that we would not grow apples enough during the next fifty years to make vinegar of, and other fruits in the same way, and that wine would be profitable at fifty cents per gallon; and as the same fears have been entertained by some for the last fifty years, while fruits have been advancing all the time, there is little to fear in planting too much.

The third day was devoted to reports of committees and general arrangement of business for fairs, &c. All of which I beg leave to report.

J. M. JORDAN,

Delegate from St. Louis Horticultural Society.

The report was accepted and ordered to go with the minutes.

Dr. L. D. Morse, Secretary of State Board of Agriculture, read an Essay on Arboriculture, which on account of its length we omit, but may publish at some future time.

Carew Sanders exhibited branches of the following ornamental trees and shrubs, all from the Nursery of Messrs. Colman & Sanders, St. Louis county, viz:

Norway, Sycamore, and English Hedge or Cork Barked Maples; Spanish and American Chestnut; Dwarf do; Pavia, European Mountain; Lentiscus Leaved and Quadrangular Ash; Turkey, Wilson Leaved and Southern Oaks; Magnolia Acuminata; Kentucky Coffee Tree; Hercules' Club; Deciduous Cypress; Hop Tree; Kobretaria Paniculata; Staphylia Trifoliata; Red Bud; Red Elm; Hackberry; Hornbeam; Sophora Japonica; Sweet Gum; Tulip Tree; Common Mulberry and Beech. These specimens, brought forward by Mr. Sanders and explained one by one, awakened a deep interest among all the members of the Society present. Adjourned.

CHAS. PEABODY, Secretary pro tem.

EDITOR'S TABLE.

Address at Carlyle, Ills.

The Editor of this Journal has been invited to deliver the Annual Address at the coming Fair of the Clinton County (Ills.) Agricultural Society, which will be held at Carlyle, Oct. 9th, 10th and 11th. We have accepted the invitation, and shall be happy to meet the Clinton County farmers on that occasion.

POSTPONED.—The Macoupin County (Ills.) Fair will not come off at Carlinville till Oct. 17.

The Pettis County (Mo.) Fair will be held at Sedalia, commencing Oct. 15th, and continuing five days. We have not yet seen the List of Premiums.

FRUIT TREE IMPOSTOR.

N. J. COLMAN, Esq.—A man signing himself John Windle, and claiming to be an agent of the St. Louis Nursery, owned by Colman & Myers [probably Sanders—Ed.], has been canvassing this country the past spring and summer, taking orders for fruit trees, &c. for fall delivery. I did not see him myself, but learned he did a very good business in the neighborhood in the way of orders. Believing him to be an impostor, I have determined to let you know about him. One of my neighbors questioned him closely as to what Colman it was. He said it was N. J. COLMAN, Editor of the *Rural World*. Now, if such is not the case, will the parties be bound to take the trees? G. Allen, Randolph Co., Mo.

REMARKS.—We have no such agent taking orders. He is an impostor. The parties giving the orders cannot be compelled to take the trees. They supposed they were ordering trees from our Nursery. The orders were obtained through fraud and misrepresentation. Such contracts cannot be enforced.

ED. RURAL WORLD: I wish to know the names of the two varieties of grapes accompanying this note. Variety No. 1 is from Cincinnati. Both seem to be good varieties, though the bunches are rather small. I suppose that is principally owing to the bad treatment they receive. They are entirely free from mildew and rot, and bear a full crop every year. An answer through your journal will greatly oblige Jefferson Barracks, Mo. A SUBSCRIBER.

REPLY.—No. 1, is the Catawba; No. 2, is the Isabella. They probably are exempt from mildew on account of the neglect they receive.

SEEDING MEADOWS IN ENGLAND.—Mr. Willard in a letter from England, published in the *Utica Herald*, says:

"Meadows are seeded with the following per acre. Twelve quarts of common rye grass; 8 quarts of Italian rye grass; 4 quarts red clover; meadow clover, 2 lbs.; or in lieu of this last, 2 of trefoil and 2 lbs. of Timothy. His system is to cut one crop, and then turn to pasture and keep in pasture three or four years, and then break up. When meadows are not fed down in spring, the crop is about four tons to the acre."

CATALOGUE READY.

We have just issued our Fall Catalogue of Fruit and Ornamental Trees and Plants, which will be mailed to any address on receipt of postage stamp.

COLMAN & SANDERS,
St. Louis, Mo.



A LEAK.

How now, sir! Your boat leaks!
Well, why should you wait?
'Tis labor and patience
And pains that make fate.

Up! waste not a moment!
The tide's at the flood—
'Tis working, not waiting
That brings us to good.

I tell you the angels
Don't help us to plan,
Until we have first done
The best that we can.

So sit not a-moping
With down-dropping hand—
But take up your paddle
And row for the land.

Our ends are shaped for us.
What of it? Still we,
To a limit we never
Can measure, are free:

And spite our allotments
Of good things and ill,
We drift in the main
In the line of our will.

So 'tis clear it won't do
To trust and to wait—
'Tis labor and patience
And pains that make fate.

The Farmer's Winter Evenings.

Again the long winter evenings are approaching—so welcome to the farmer who has gathered his store for the winter's use. This is his season of rest. It is also the season of strength, health, and activity of mind; and in this last he should indulge himself: it is the only one of his powers he can now exercise. The long quiet evenings are suited to this. Does he improve them? Has he suitable books to read, papers, periodicals? Now is his time to improve himself—to store his mind with what he wishes to practice the ensuing summer. If he neglects it now, in these long evenings, he will never improve—as, in summer, he has no time to read and reflect. Let him read few books—let him read them well, and reflect on what he reads. To master one book is a greater achievement than to read a hundred without reflection. The habit of mere reading, or hastily running through a book, is injurious, as it establishes a bad habit, and confuses the mind; it undisciplines the mind.

The books which the farmer ought to read, are not the entire list of Agricultural works.—The list is too large for any but a scientific farmer to read. Besides, a few of these contain the pith of the whole. For the general farmer we would recommend, Allen's American Farm Book, price \$1.50; Randall's Practical Shepherd, price \$2; Quinby's Mysteries of Bee-Keeping, price \$1.75, and Downing on the Trees of America. These books have a style

as well as matter to interest the reader. They are live books. There is another small work, we believe by Ware, on the Elements of Farming. This has the best style of all, and cannot fail to impress its truths upon the mind of the reader. Downing is classic and elegant, yet simple and vigorous. His work is the text book of the country on fruit trees. Then there is Barry's Fruit Garden, \$1.50; Cole's American Veterinarian, \$0.75; Cultivation of Native Grapes and Manufacture of American Wine, \$1.50; Dadd's American Cattle Doctor, \$1.50; Horse Doctor, \$1.50; Warder's Hedges and Evergreens, \$1.50, and Ten Acres Enough, \$1.50. These may be added, if it is desired to increase the list. They are all excellent to refer to. Ten Acres Enough, is written by an engaging author: much good has been derived, as well as much interest awakened by this book.

With these, the farmer can spend his evenings profitably; and then he has the books on hand always to refer to. If he runs through them all, he will not be benefitted. If he picks here and there, and at random, it will be the same. If he reads one book at a time—as though he had but one—and reads it thoroughly, and reflects on what he reads, and compares it with what he has seen and knows—then he will advance, not only in knowledge, but in farming. This is the way. If one book is mastered—or, rather, if the subject of which it treats, is mastered, understood—then take up another. Never crowd your reading—never hurry. Let the interest carry you along. If you have no interest—why you are not in your place, you have missed your calling.

THE FARMER'S WIFE.—Is there any position a mother can covet for her daughter, more glorious than to be the wife of an honest, independent, happy farmer, in a country like this? To be the wife of one who is looked up to by the neighbors as one whose example may be safely followed—one whose farm is noted far and near as a model of neatness and perfection of cultivation? To be the mistress of a mansion of her own, that may be the envy of every passer-by, because it is neat and comfortable—a sweet and lovely cottage home? To be the angel that flits through the garden, bidding the flowers bloom, and twining roses and honeysuckles around the bed room, or sweetening their fragrance with her sweetest smile: or spreading the snowy cloth beneath the old oak at the door to welcome her husband as he returns from his toil; or ever tipping the cradle with her foot as she plies the dasher with her hand, or busily moves the needle, at the same time humming a joyous song of praise that she is the happy and fondly beloved wife of an American farmer—one of the true noblemen of this free country—one that should by right, rank as the pride and glory of America.

How to Cut a Lead Pencil.

With a sharp knife always. Never press hard when you are cutting, as that snaps the point. When the rough is taken off, set the point on your thumb, or on a firm place, and finish up. Make a long taper, and let it be uniform, reaching down to the point. This, gives it strength, an important thing. Get Faber's No. 2. Never buy a cheap pencil.

CURIOSITIES OF THE EARTH.—At the city of Modina, in Italy, and about four miles around it, wherever the earth is dug, when the workmen arrive at the distance of 63 feet, they come to a bed of chalk which they bore with an auger, five feet deep. They then withdraw from the pit before the auger is removed, and upon its extraction the water bursts up through the aperture with great violence, and quickly fills the newly made well, which continues full and is affected neither by rains nor drouth. But what is remarkable in this operation is the layers of earth as we descend. At the depth of 14 feet are found the ruins of an ancient city, paved streets, houses, doors and different pieces of mason work. Under this is found a soft, oozy earth, made up of vegetables, and at 26 feet, large trees entire, such as walnut trees, with walnuts still sticking to stems, and the leaves and branches in a state of preservation. At 88 feet deep, a soft chalk is found, mixed with a vast quantity of shells, and the bed is eleven feet thick. Under this vegetables are found again.—[Scientific American.]

PARAGRAPHS.

Life is a given sum of power. According as we use or abuse that power, will be our happiness and length of days.

The unhappiest men are also at times the happiest. A moth career has neither happiness nor misery: it is tame, monotonous.

Fate has much to do with our enjoyment; deliberation more; mortification most of all, as it destroys the evil that poisons our happiness.

Pride is found in the human race only.

We often find simplicity in vain people.

According to a high authority, the mind is capable of performing most labor an hour and a half after breakfast, and least at retiring to rest. It is strongest in winter and weakest in summer.

When we cultivate nature, it is still nature—nature enlarged. Thus plants: thus the mind.

The "electric" effect of public speaking is not electricity, as so commonly held; else there would be electricity in a book, a picture: these are only ink and paper. It is in the man, and his instinctive power he has over an audience.

Our education is commenced in our cradle.

Poetry is a thing of the heart, prose of the mind; the one instructs, the other moves.

When a man has no design out to speak plain truth, he can say a great deal in a very small compass.

Listen if you would learn; be silent if you would be safe.

A man had been in the habit of borrowing books, and never returned them. Being expostulated with on the subject, he replied, he was only exercising his profession. He was a book-keeper.

GOING OFF.—It is a popular delusion that powder on a lady's face has the same effect as in the barrel of a musket—assists her to go off.

"I love thee still," as the quiet husband said to the chattering wife.

A wag, speaking of the embarkment of troops said, "Notwithstanding many of them leave blooming wives behind, they go away in transports!"

BE EARNEST.

Be earnest in thy calling,
 Whatsoever it may be;
 Time's sands are ever falling,
 And will not wait for thee.

With zeal and vigor labor,
 And thou wilt surely rise;
 Strive ever with thy neighbor
 To bear away the prize.

But form thy purpose gravely,
 Then quickly push along,
 And prosecute it bravely,
 With resolution strong.

Thou wilt not be defeated,
 But, pressing firmly on,
 Find all at length completed—
 Thine object fully won!

Be earnest in devotion,
 Old age is drawing near;
 An atom in Time's ocean—
 Thou soon wilt disappear.

THE WAY TO WEALTH.

Benjamin Franklin, the self-taught American philosopher, was perhaps the most extraordinary man that this country has ever produced. It may be impossible to gather from the history and labors of one individual mind more practical wisdom and varied instruction than he has given to the world. For many years he published the *Pennsylvania Almanac*, called *Poor Richard* (Sanders) and furnished it with many wise sayings and proverbs which related to topics of "industry, attention to one's own business and frugality." The most of these he finally collected and digested in the following general preface, which sayings are so peculiarly adapted to the present times, that we do not know that we can do our readers better service than to give them a place in the *Rural World*. These sayings were not more applicable to the people and the times one hundred years ago than to the present, and their teachings should never be lost sight of, until the world is much wiser and much better than it is at present:

The way to Wealth, as clearly shown in the Preface of an old Pennsylvania Almanac, entitled "Poor Richard Improved."

"COURTEOUS READER:—I have heard that nothing gives an author so great pleasure as to find his works quoted respectfully by others. Judge then how much I must have been gratified by an incident I am going to relate to you. I stopped my horse lately where a great number of people were collected at an auction of merchant's goods. The hour of the sale not being come, they were conversing on the badness of the times; and one of the company called to a plain, clean old man with white locks, "Pray, Father Abraham, what think you of the times? Will not these heavy taxes quite ruin the country? How shall we be able to pay them? What would you advise us to?" Father Abraham stood up and replied, "If you would have my advice, I will give it you in short, for 'A word to the wise is enough,' as *Poor Richard* says." They joined in desiring him to speak his mind, and, gathering around him, he proceeded as follows:

"Friends," said he, "the taxes are very heavy, and if those laid on by the government were the only ones we had to pay, we might more easily discharge them; but we have many others, and

much more grievous ones to some of us. We are taxed twice as much by our idleness, three times as much by our pride, and four times as much by our folly; and from these taxes the commissioners cannot ease or deliver us, by allowing an abatement. However, let us hearken to good advice, and something may be done for us; 'God helps them that help themselves,' as *Poor Richard* says.

"I. It would be thought a hard government that should tax its people one-tenth part of their time, to be employed in its service, but idleness taxes many of us much more; sloth, by bringing on disease, absolutely shortens life. 'Sloth, like rust, consumes faster than labor wears, while the used key is always bright,' as *Poor Richard* says. 'But dost thou love life, then do not squander time, for that is the stuff life is made of,' as *Poor Richard* says. How much more than is necessary do we spend in sleep, forgetting that 'The sleeping fox catches no poultry,' and 'That there will be sleeping enough in the grave,' as *Poor Richard* says.

"If time be of all things the most precious, wasting time must be," as *Poor Richard* says, 'the greatest prodigality,' since, as he elsewhere tells us, 'Lost time is never found again; and what we call time enough, always proves little enough.' Let us, then, up and be doing, and doing to the purpose; so by diligence shall we do more with less perplexity. Sloth makes all things difficult, but industry all easy, and he that riseth late must trot all day and shall scarce overtake his business at night, while Laziness travels so slowly, that Poverty soon overtakes him. 'Drive thy business, let not that drive thee, and early to bed and early to rise, makes a man healthy, wealthy and wise,' as *Poor Richard* says.

"So what signifies wishing and hoping for better times? We make these times better if we bestir ourselves. 'Industry need not wish, and he that lives upon hopes will die fasting. There are no gains without pains; then help, hands, for I have no lands, or, if I have, they are smartly taxed. He that hath a trade hath an estate, and he that hath a calling hath an office of profit and honor,' as *Poor Richard* says; but then the trade must be worked at, and the calling followed, or neither the estate nor the office will enable us to pay our taxes. If we are industrious we shall never starve; for, 'at the working-man's house hunger looks in but dare not enter.' Nor will the bailiff or the constable enter; for 'Industry pays debts, while despair increaseth them.' What though you have found no treasure, nor has any rich relation left you a legacy? 'Diligence is the mother of luck, and God gives all things to industry.' Then plow deep, while sluggards sleep, and you shall have corn to sell and to keep.' Work while it is called to day, for you know not how much you may be hindered to-morrow. 'One to-day is worth two to-morrows,' as *Poor Richard* says, and further 'Never leave that till to-morrow which you can do to-day.' If you were a servant, would you not be ashamed that a good master should catch you idle? Are you, then, your own master? Be ashamed to catch yourself idle when there is so

much to be done for yourself, your family and your country. Handle your tools without mitens; remember that 'The cat in gloves catches no mice,' as *Poor Richard* says. It is true there is much to be done, and perhaps you are weak handed, but stick to it steadily, and you will see great effects, for 'Constant dropping wears away stones,' and 'By diligence and patience the mouse ate through the cable,' and 'Little strokes fell great oaks.'

"Methinks I hear some of you say, 'Must a man afford himself no leisure?' I will tell thee, my friend, what *Poor Richard* says, 'Employ thy time well, if thou meanest to gain leisure, and since thou art not sure of a minute, throw away not an hour.' Leisure is time for doing something useful; this leisure the diligent man will obtain, but the lazy man never; for a life of leisure and a life of laziness are two things. Many, without labor, would live by their wits only, but they break for want of stock, whereas industry gives comfort, and plenty, and respect. Fly pleasures, and they will follow you. 'The diligent spinner has a large swift: and now I have a sheep and a cow, everybody bids me good morrow.'

"II. But with industry we must likewise be steady, settled and careful, and oversee our own affairs with our own eyes, and not trust too much to others; for as *Poor Richard* says,

'I never saw an oft removed tree,
 Nor yet an oft removed family,
 That thrive as well as those that settled be.'

And again, 'Three removes are as bad as a fire;' and again, 'Keep thy shop, and thy shop will keep thee;' and again, 'If you would have your business done, go—if not, send.' And again,

'He that by the plow would thrive,
 Himself must either hold or drive.'

And again, 'The eye of the master will do more work than both his hands;' and again, 'Want of care does us more damage than want of knowledge;' and again, 'Not to oversee workmen is to leave them your purse open.' Trusting too much to others' care is the ruin of many. For in the affairs of this world men are saved, not by faith, but by the want of it, but a man's own care is profitable; for 'If you would have a faithful servant, and one that you like, serve yourself.' A little neglect may breed great mischief; 'for want of a nail the shoe was lost; for want of a shoe the horse was lost; for want of a horse the rider was lost, being overtaken and slain by the enemy.' All for want of a little care about a horse shoe nail.

[Conclusion in our next.]

A HEART THAT FEELS FOR ANOTHER.—"I give and bequeath to Mary my wife the sum of one hundred pounds a year. Is that written down, maester?"

"Yes. But she may marry again. Won't you make a change in that case?"

"Well, write again, and say, And if my wife marries again, two hundred pounds a year.—That'll do, won't it, maester?"

"Why, that's doubling the sum she would have if she remained unmarried. It is generally the other way—the legacy is lessened if the widow marries again."

"Ay, but him as gets her'll deserve it."

DOMESTIC DEPARTMENT.

GERMAN POLISH FOR BOOTS AND SHOES.—Break into small pieces a cake of white wax, and put it into a tin or earthenware vessel; pour over it as much oil of turpentine as will cover it; closely cover the vessel and let it stand during twenty-four hours. During this interval the wax will have dissolved, and, with the turpentine, have formed a paste. With this incorporate as much finely powdered animal charcoal as will impart to the mixture an intensely black color. When required for use, take out a little on the point of a knife, and with a brush rub it into the boots, previously cleansed from dirt. The oil of turpentine will evaporate, leaving the wax upon the leather in the form of a fine rich varnish. Should the composition become too dry, it may at any time be moistened by the addition of a little oil of turpentine.

CHICKEN PANADA.—Boil a chicken till about three parts ready, in a quart of water; take off the skin, cut the white meat off when cold, and put into a marble mortar; pound it into a paste with a little of the water it was boiled in, season with salt, a grate of nutmeg and the least bit of lemonpeel. Boil gently for a few minutes to the consistency you like; it should be such as you can drink, though tolerably thick. This conveys great nourishment in a small compass.

PREPARING QUILLS.—Suspend in a boiler bunches of quills, fill with water just to touch their nibs. Close it steam tight, boil the water four hours and take them out. The next day cut the nibs and draw out the pith, and rub them with a piece of cloth and expose them to a moderate heat. The following day they will have the hardness of bone, without being brittle, and be as transparent as glass.

Never destroy toads, keep them in your garden to destroy bugs and fleas. They will do more to preserve a garden than a man from insects.

HOPE.

The Scripture saith, that "Hope is an anchor to the soul, both sure and steadfast." It is the unfortunate's only comfort in adversity, and the star of promise which urges forward the struggling poor man. What is it that gives contentment to that mother who sees her darling child attacked by the ghost of the deadly croup, or suffering from the effects of a consuming cough or violent cold. What is it that wreathes in smiles the lips of that patient consumptive, who, though she knows she cannot live, yet murmurs her silent and thankful prayer for ease and relief. What is that has become a nation's hope—from North to South, from East to West, comes but one joyful response—Give us Coe's Cough Balsam.

\$28.80 per day. How

Agents are making it. How one made \$57.60. Business, new, light, honorable pleasant, permanent. For full particulars call on or address, A. D. BOWMAN & Co., 115 Nassau St., New York. (Clip out and return this notice.) Sept. 15—2t

THOROUGH-BRED SPANISH SHEEP FOR SALE.—I have for sale, of pure Spanish Stock, a FEW EWES AND BUCK LAMBS. They can be seen at my premises, two miles south of Nilwood, Chicago and St. Louis R. R. The lambs are sired by the celebrated Infantado Ram "Prince." Orders promptly filled by express, properly boxed, and satisfaction given. R. H. BALLINGER, Oct. 1 Nilwood, Macoupin Co. Ill.

CASHMERE GOATS.

I have about 30 goats for sale, some of them three-quarter Cashmere, some half Cashmere, and some of them common goats. To any one who desires to breed the Cashmere goat, a rare chance is now offered. I am about converting the farm at which I keep them, into a fruit farm, which is my reason for selling them. Or I would let them to any responsible person on shares for a term of years. For further particulars, address NORMAN J. COLMAN, St. Louis, Mo.

AN INTERESTING QUESTION.

What class of people will be most susceptible to attacks of Cholera?

Evidently those affected with any disease of the stomach, liver, or any of the organs appertaining to digestion. This class of persons will undoubtedly be more liable to contract this disease than those possessed of strong and healthy digestive organs.

The question then naturally arises, how shall we restore and keep these organs in a healthy and normal condition? We answer, by attention to diet, avoiding all undue excitement, using moderate exercise, avoiding all intoxicating drinks, no matter in what form presented, and by the use, according to directions of that great strengthening tonic,

Hoofland's German Bitters,

Prepared by Dr. C. M. JACKSON, Philadelphia.

This Bitters is a compound of Fluid Extracts. The roots and herbs from which it is made are gathered in Germany, and their virtues, in the form of extracts, extracted by one of the most scientific chemists and pharmacutists this country affords. It is

NOT A LIQUOR PREPARATION,

In any sense of the word; contains no whisky, rum, or any other intoxicating ingredients, and can be freely used in families, without any fear or risk of those using it contracting the disease or vice of intemperance. We wish this fact distinctly understood, as many are apt to confound this Bitters with the many others before the public, prepared from liquor of some kind. During the

Cholera Season

Of 1849, this Bitters was extensively used throughout the entire country AS A PREVENTIVE, And we have not heard of a single instance in which this Bitters was used, where the persons suffered from any of the symptoms of Cholera.

THE GREAT STRENGTHENING TONIC

HOOFLAND'S GERMAN BITTERS,

WILL CURE DEBILITY resulting from any cause whatever. Prostration of the System induced by severe Hardships, Exposure, Fevers, or Diseases of Camp Life.

Soldiers, Citizens, Male or Female, Adult or Youth, Will find in this Bitters a pure Tonic, not dependent on bad liquors for their almost miraculous effects.

This Bitters will cure the most severe cases of

DYSPEPSIA,

And Diseases resulting from Disorders of the Digestive Organs, and is the only sure, certain and safe remedy for LIVER COMPLAINTS. All are more or less affected during the spring and fall with torpidity of that important organ of digestion, the Liver. This Bitters, without containing any preparation of mercury, or by purging, acts powerfully on this organ, excites it to a healthy and lively action, and gives a tone to the whole system, hence,

HEALTH, ENERGY AND STRENGTH take the place of SICKNESS, DEBILITY AND LASSITUDE.

Hoofland's German Bitters,

Will cure every case of Chronic or Nervous Debility, Diseases of the Kidneys, and Diseases

Arising from a Disordered Stomach.

Observe the following symptoms resulting from disorders of the digestive organs:

Constipation, Inward Piles, Fullness of Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or Weight

In the Stomach, Sour Eructations, Sinking or Fluttering at the Pit of the

Stomach, Swimming of the Head, Hurried and Difficult Breathing, Fluttering at the Heart,

Choking or Suffocating Sensations

When in a Lying Posture, Dimness of Vision, Dots or

Webs before the Sight, Fever and Dull Pain in the Head, Deficiency of

Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Back, Chest, Limbs, &c.,

Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil, and Great Depression

of Spirits.

BE SURE YOU GET THE GENUINE.

Prepared by Dr. C. M. Jackson, Philadelphia, with his signature on the wrapper and his name blown in the bottle. There are counterfeits in the market.

Price, Single Bottle, \$1, or half a dozen for \$5.

Should your nearest druggist not have the article, do not be put off by any of the intoxicating preparations that may be offered in its place, but send to us, and we will forward, securely packed by express.

Principal Office and Manufactory, No. 631 Arch St., Philadelphia, Pa.

CHAS. M. EVANS, Proprietor, mar15—1y [Formerly C. M. JACKSON & CO.]

CHESTER WHITE PIGS.

A few pairs of Chester White Pigs on hand, boxed and shipped to any address, without further charge, on receipt of thirty dollars per pair or fifteen dollars each either sex. Also, some crosses of the Yorkshire and Chester White at same price. Address, NORMAN J. COLMAN, St. Louis, Mo.

Thorough-bred Stock, Domestic and Ornamental Fowls for Sale.—The undersigned still continue to furnish and ship to all parts of the U.S. and Canada all breeds and descriptions of Stock and Fowls, pure bred and of best quality, comprising in all 160 breeds and varieties! 120 of Fowls alone! including Cattle, Sheep, Hogs, Dogs, Goats, Rabbits, Deer, Swans, Geese, Ducks, Turkeys. 15 varieties of Gallus or Chickens, Guinea and Pea Fowls, Pigeons, &c. The largest and only complete collection in U.S. or Canada. Reference, C. N. Bement, Esq., Poughkeepsie, N.Y., L. W. A. Wright, St. Louis. Enclose stamped and directed envelope for Catalogue and answer to inquiries. Price for particular varieties given with or without Catalogue. Address, COX, SCARFF & CO., or J. C. COX, Osborn, Greene Co., O.

It

GIVEN CAMPBELL,

Attorney at Law,

No. 5, Commercial Place,

NEW ORLEANS, LA.

REFERS TO—

W. L. Ewing. D. A. January. Rob't Campbell & Co. N. J. Colman.

AGENTS WANTED

FOR THE

New Union U. S. Map.

A Copper Plate County, Railroad, and Battle-Field Map, showing everything from the Atlantic to the Pacific; 38 by 56 inches; and for the

Rebellion Battle Book.

A profusely illustrated, 700 page, royal octavo, One Volume History of the Civil War, with 268 distinct battle descriptions. The best book for Agents extant. And also for

Hundreds of New Maps, Charts,

Engravings and Photographs, in great variety.

H. H. LLOYD & Co.,

PUBLISHERS, No. 21 John St. N.Y.

Oct. 1—2t

Important to Farmers.

HOWE'S PATENT CONCAVE

POST HOLE AUGER.

This implement has been in use but a short time, and is becoming very popular.

The ease with which it goes into the hard ground, is surprising to all who have tried it.

The blade is made of the best cast steel, and every Auger is warranted to give satisfaction.

For sale at retail by most of the merchants throughout the State, and at wholesale by

WARNE, CHEEVER & CO.,

IMPORTERS AND JOBBERS OF

HARDWARE

And Cutlery,

Nos. 302 and 304 Washington Av.,

ST. LOUIS.

Sole Agents for the State of Missouri.

Oct. 1—2t

ZEIGLER, McCURDY & CO., 509

Olive Street, St. Louis, Mo., want AGENTS to take orders for the PICTORIAL BOOK OF ANECDOTES AND INCIDENTS OF THE REBELLION. This work is splendidly illustrated with over 300 beautiful engravings, and is one of the finest productions of the age, and the most popular book of the war. Over 12,000 copies ordered the first two months. Good energetic agents can make over \$200 per month. Those wishing pleasant and lucrative employment should send at once for their circulars. Sept. 1—4t

FARMERS' INSURANCE COMPANY, OF ST. LOUIS, MO.

INSTITUTED BY STATE
AUTHORITY.

Authorized Capital,
\$100,000.00

Office—N. E. Corner of Fifth and
Chesnut Streets.

NORMAN J. COLMAN,
President.

P. M. KIELY, Secretary.

JOSEPH W. WHITE, Adjuster.

This Insurance Company has been organized especially for the benefit of

WESTERN FARMERS.

It will take no Fire Risks except on

FARM BUILDINGS.

It will not take Fire Risks in large towns or cities, which frequently prove so disastrous to Insurance Companies in case of large fires.

It will insure the LIFE OF ALL KINDS of

LIVE STOCK.

It will insure Horses, Mules, Cattle, &c.,

AGAINST THEFT!

It will insure the

LIVES OF PERSONS,

For the benefit of the wife and children.

The FARMERS' INSURANCE COMPANY has been organized by and under the Laws of Missouri, with all these Special Departments of Insurance, and the custom of farmers who desire Insurance is respectfully solicited.

All business will be attended to with promptness and despatch. All

LOSSES Will be promptly Adjusted and Paid.

Efficient AGENTS wanted in every County.

Letters addressed to the Secretary promptly answered.

Imported Dutch Bulbous Roots. J. M. THORBURN & CO.,

15 John Street, New York,

Beg leave to announce to their friends and the Trade, that their Annual Descriptive Catalogue of Dutch Bulbous Roots, for the autumn of 1866; also, a Trade List of the same, are now ready for mailing to applicants, free.

We also take this opportunity to offer the following

BEAUTIFUL COLLECTIONS

OF BULBOUS ROOTS.

No. 1.—ASSORTMENTS OF

- | | |
|---|----------|
| 6 Fine Named Double and Single Hyacinths, for pots, glasses or open border, | } \$2.00 |
| 1 Polyanthus Narcissus, | |
| 3 Early Tulips, | |
| 12 Fine Mixed Crocus, | |
| 1 Bulbocodium Vernal, | |

By Mail 14 cents additional.

No. 2.—ASSORTMENTS OF

- | | |
|---|----------|
| 9 Fine Named Double and Single Hyacinths, for pots, glasses or open border, | } \$5.00 |
| 6 Fine Double Tulips, | |
| 15 Beautiful Named Early Tulips, | |
| 25 Fine Mixed Crocus, | |
| 3 Polyanthus Narcissus, | |

By Mail, 38 cents additional.

No. 3.—ASSORTMENTS OF

- | | |
|--|-----------|
| 18 Fine Named Double and Single Hyacinths, for pots, glasses or open border, | } \$10.00 |
| 50 Fine Mixed Crocus, | |
| 24 Beautiful Named Early Tulips, | |
| 12 Fine Named Double Tulips, | |
| 4 Polyanthus Narcissus, | |

By Mail, 75 cents additional.

HYACINTHS.

Our Own Selections.

- | | |
|--|---------|
| 12 Mixed Hyacinths (double and single), for pots or open ground, | 1.50 |
| 12 Named Double and Single Hyacinths, for pots, glasses, or open border, | \$3.00 |
| 12 Fine Named Double and Single Hyacinths, for pots, glasses, or open border, | \$4.00 |
| 12 Extra Fine Named Double and Single Hyacinths, for pots, glasses, or open border, | \$5.00 |
| 12 Our very best collection of Double and Single Named Hyacinths, for pots or open border, | \$8.00 |
| Mixtures, per 100, | \$11.00 |

By mail at the rate of 22 cts. per dozen additional.

MIXED HYACINTHS.

For Open-air Culture.

- | | |
|---|--------|
| In quantities less than 1 dozen, 15 cents each. | |
| Double Blue, all shades, per dozen, | \$1.50 |
| Double Red, all shades, " | 1.50 |
| Double White, various colored eyes, " | 1.50 |
| Double Yellow, all shades, " | 2.50 |
| Double, all colors mixed, " | 1.50 |
| Single Blue, all shades, " | 1.50 |
| Single Red, all shades, " | 1.50 |
| Single White, various colored eyes, " | 1.50 |
| Single Yellow, all shades, " | 1.50 |
| Single, all colors mixed, " | 1.50 |

By mail at the rate of 20 cents. per doz. additional.

MIXED TULIPS

For the Garden.

- | | | | |
|---------------------------|---------|---------|------|
| | per 100 | per doz | each |
| Fine Mixed Early Single, | \$6 | 75 | 08 |
| Fine Mixed Late Single, | \$6 | 75 | 08 |
| Fine Mixed Bizarre, | \$6 | 75 | 08 |
| Fine Mixed Bybloom, | \$6 | 75 | 08 |
| Fine Mixed Rose or White, | \$6 | 75 | 08 |
| Fine Mixed Parrot, | \$6 | 75 | 08 |
| Fine Mixed Double, | \$6 | 75 | 08 |

By mail at the rate of 6 cents per dozen additional. Also, LILIES, CROCUS, NARCISSUS, &c. &c., for all of which see our Descriptive Catalogue of Bulbs.

J. M. THORBURN & Co.,

Oct. 1—3t

15 John St., New York.

Nurserymen, Dealers and Planters

Will find at the

Columbus Nursery,

(Established 1855.)

A very large and complete assortment of

Fruit and Ornamental Trees, Evergreens, Roses, Shrubs, Fine Grapes, Small Fruits, &c. &c.,

Of Fine Quality, well adapted to Southern and Western planting, and embracing of new and old, all that has been found worthy of cultivation. Packing well done to carry safely any distance. Facilities for shipping unsurpassed. Call and examine stock, or send stamps for catalogues.

R. G. HANFORD, Columbus, Ohio.

Sept. 1—4t.

25,000 Superior Concord Layers

for sale, at \$100 per 1000, \$12.50 per 100, by
Sept. 1—4t E. A. RIEHL, Alton, Ill.

GRAPE VINES.

For sale about 30,000 well-rooted grape-vine layers and rooted cuttings, comprising all the Hardy varieties, such as Norton's Virginia Seedling, Concord, Hartford Prolific, Clinton, &c.

EISENMAYER & BRO.,

Sept. 1.

Mascoutah, Ills.

IMPORTED FLOWER BULBS

I am in receipt of an invoice of Holland Flower Bulbs, such as HYACINTHS, TULIPS, NARCISSUS, CROCUS, SNOWDROPS, LILIES, CROWN IMPERIALS, &c. My Catalogue is now ready for distribution. Sale Depot with Wm. Koenig & Co. 207 North 2d St., where sample bulbs can be seen after Oct. 1st. Catalogues sent gratis to all applicants.

Address, HENRY MICHEL,

Sept. 15—2t

207 North 2d St., St. Louis, Mo.

KNOX FRUIT FARM

AND

NURSERIES.

GRAPE VINES.

As the demand for our vines in the spring always exceeds the supply, parties wishing to purchase would do well to order this fall. Our stock is unusually large and superior, and includes all the best kinds. In addition to the old varieties, we can furnish in quantity the

MARTHA,

BLACK HAWK,

EVA,

IVES,

RENTZ,

IONA,

ISRAELLA, ADIRONDAC, &c.

STRAWBERRY PLANTS.

JUCUNDA—Our No. 700—the most valuable of all our strawberries.

FILLMORE, AGRICULTURIST, BUREAU'S NEW PINE, GOLDEN SEED, GEORGIA MAMMOTH, GREEN PROLIFIC, TRIOMPHE DE GAND, WILSON'S ALBANY, And all other desirable kinds.

Also, a full assortment of

Raspberries, Blackberries, Gooseberries, &c.

We call special attention to our collection of

CURRENTS,

Which we believe is the largest and best in the country. Send 10 cents for our Descriptive and Illustrated Catalogue, which contains much valuable information on SMALL FRUIT Culture.

Our Grape Show for this Season comes off on the 17th and 18th of Oct. J. KNOX, Box 155, Pittsburgh, Pa.

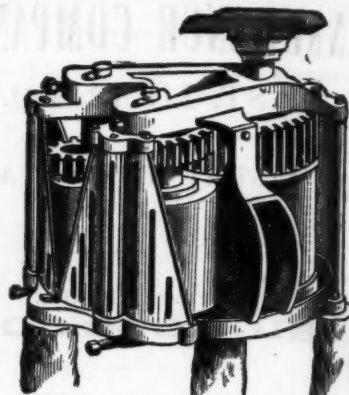


Barnum & Brother, Missouri Agricultural Warehouse And Seed Store,

No. 25 South Main St.,

Sign of the OX YOKED hangs directly over entrance, 3 doors North of Walnut Street,

ST. LOUIS, MISSOURI.



Wholesale and retail dealers in Agricultural Implements and Machines, Garden, Grass & Field Seeds, Agents for **Celebrated Victor SORGHUM Mills and Cook's SORGHUM Evaporators.**

These Mills and Evaporators have universally received the stamp of public approval, and we invite all interested to call and examine.

ALSO AGENTS FOR

CHAMPION of OHIO Reapers and Mowers.
BUCKEYE Wheat Drill.
BUCKEYE Cider Mill.
BUCKEYE Cultivator.

VANDIVER'S Mo. Corn Planter,
ALLEN'S COTTON PLANTER,
PITTS' Threshers and Horse Powers.

Also on hand various patterns of Cutting Boxes, Corn Shellers, Cotton Gins, &c.
MISSOURI FAMILY WASHING Machine and Wringer.

Barnum & Bro., 25 South Main St., 3 doors north of Walnut.

Fruit Commission House

377 Broadway, St. Louis, Mo.
VALENTINE GERBER,

Who has been engaged in selling Fruit for fifteen years past, desires to inform his friends and fruit growers generally, that from his large experience and superior facilities, he believes he is prepared to sell their fruits at a better advantage than any other house in St. Louis. He keeps thoroughly posted in the fruit markets at Chicago and all other northern towns, and is prepared to take the advantage of those markets when prices are higher there than in St. Louis. He can refer to his customers who have dealt with him for the past ten or fifteen years, but will only refer here to **NORMAN J. COLMAN**, President of the St. Louis Horticultural Society.

All kinds of fruits received and disposed of in the shortest time, and remittances promptly made.

All fruit should be consigned to
VALENTINE GERBER,
377 Broadway, St. Louis, Mo.

HEDGE PLANTS.

The Subscriber is now receiving orders for **OSAGE ORANGE PLANTS**, By the Thousand, Hundred Thousand and Million, **At Peace Prices** Having Eighteen Years' Experience in raising and handling plants, and also growing hedge, he flatters himself that he can make it to the interest of those wishing to set hedge, to order plants of him. He will furnish to those who send in their orders, **PRINTED DIRECTIONS**, giving all necessary instruction on the subject of hedging.

All the Agents of the Subscriber are furnished with Certificates of Agency, so that none need be imposed on. Your patronage is solicited, and assurance given that you will be liberally dealt with.

W. H. MANN, Box 100,
May, 1866. Normal, Ills.

AGENTS WANTED.

GRAPE VINES—Norton's Virginia Seedling, Concord, Clinton, Hartford Prolific.

A large Stock of the above and all other leading varieties, grown from layers. Send for Price List. Address, **HENRY MICHEL,**
Sep. 15—3t 207 North 2d St., St. Louis, Mo.



Dr. Jackson's BLOOD AND HUMOR SYRUP

will positively cure SCROFULA, ERYSIPELAS, DYSPEPSIA, INDIGESTION, HEARTBURN or any HUMOR in the BLOOD or STOMACH, and for PURIFYING the SYSTEM and ERADICATING all TRACES of DISEASE this remedy has no equal, and for BUILDING up the SYSTEM, and giving new STRENGTH and VIGOR—its unparalleled success since its introduction, and the wonderful cures it has and is daily performing are its best guarantee, and we earnestly desire that every sufferer shall give it a trial. Sold by all Druggists. Price one dollar a bottle.

COLLINS BROTHERS,
ST. LOUIS, MO. Proprietors.

ITCH! ITCH!!



Will cure the ITCH or SALT RHEUM.

In a few applications. It also cures prairie Scratches, Chilblains, Ulcers and all Eruptions of the skin where other remedies have been tried in vain, cures speedily and thoroughly. Price 50 cents a box. Sold by all druggists. By sending 60 cents in a letter to **COLLINS BROTHERS, S. W. cor. 2d & Vine streets, St. Louis, Mo.**, it will be sent by mail free of postage. April 15-ly.

NATIVE WINES.

Norton's Virginia, Concord, Herbmom, Delaware, Cunningham, Cassady, Clinton, Hartford Prolific and Catawba, by the case, containing 1 dozen bottles each. Norton's Virginia, Concord and Catawba, also by the keg, barrel or cask.

As these wines were all grown on my own vineyards, and carefully managed, I can warrant them to be of superior quality and to give general satisfaction.

Sample cases, containing one dozen bottles assorted of all the above varieties, will be put up if desired. Address, **GEO. HUSMANN, Hermann, Mo.**

PRICE LIST OF WINES,

Grown by
GEORGE HUSMANN, GRAPE HILL VINEYARDS, NEAR HERMANN, MO.

In cases of one dozen bottles each—

Norton's Virginia, first quality,	\$18.00
Concord, first quality,	12.00
Concord, second quality, very good,	10.00
Herbmom, first quality,	18.00
Delaware, first quality,	24.00
Cunningham, first quality,	18.00
Cassady, first quality,	12.00
Clinton,	10.00
Hartford Prolific,	16.00
Catawba, first quality,	10.00
Catawba, second quality, very fair,	\$ 8.50

In casks, in quantities under forty gallons—

Norton's Virginia, first quality,	\$4.50 per gallon.
Concord, first quality,	3.00 "
Concord, second quality,	2.50 "
Catawba, first quality,	2.50 "
Catawba, second quality,	2.00 "
Herbmom, first quality,	4.50 "

In quantities over forty gallons—

Norton's Virginia, first quality,	4.00 "
Concord, first quality,	2.50 "
Concord, second quality,	2.00 "
Catawba, first quality,	2.00 "
Catawba, second quality,	1.75 "

As these wines were all grown on my own vineyards and carefully managed, I can warrant them to be of superior quality, and have no doubt but they will give general satisfaction. **GEO. HUSMANN.**

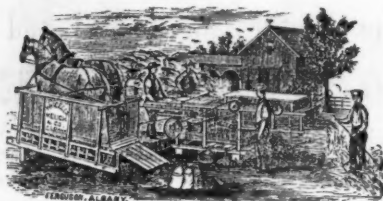
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Clover Hullers, Feed Cutters, Saw
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ADIRONDAC GRAPE NUR- SERY AND VINEYARD.

Superior Vines at Low Prices.

40,000 ADIRONDAC GRAPE VINES, of one,
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Sample vines securely packed and sent by mail when
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Sept. 15—4t Plattsburgh, Clinton Co., N.Y.

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breed and ship this celebrated breed of swine to all
parts of the country, mated not akin, and at any age
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information in regard to breeding and management
of hogs. Address, Doe Run, Chester Co., Pa.
Sept. 15—2tpd THOS. WOOD.

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I will sell my surplus of Early Goodrich Potatoes,
at the following rates—\$1.25 per peck; \$4 per bushel,
and \$10 per barrel (of 165 lbs.) I will also send as
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them a very desirable sort where the potato bug is
troublesome, and eminently fits them for the moun-
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Also, a few of the Gleason, the best late variety at
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50,000 Concord Grape Vines.

I have for sale 50,000 Concord Grape Vines, at \$70
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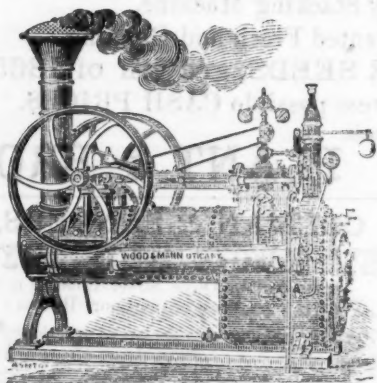
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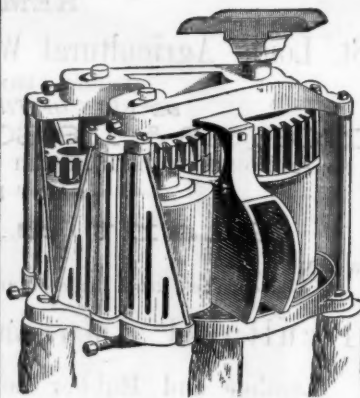
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